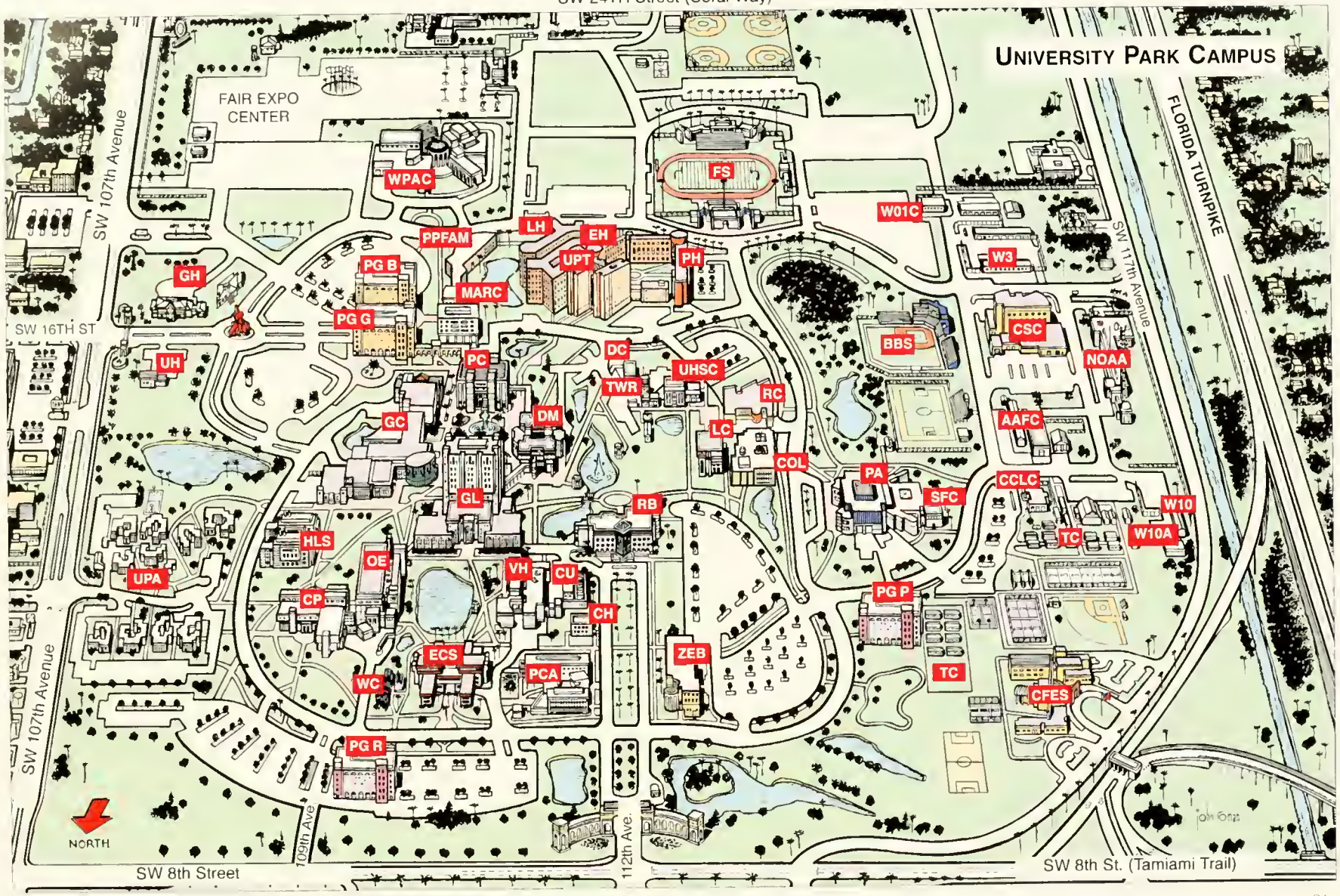
UNDERGRAD

FLORIDA INTERNATIONAL UNIVERSITY

07 • 08

UNDERGRADUATE

course catalog



AAFC	Athletics Academic Fitness Center	K5
BBS	Baseball Stadium	J4
CCLC	Children's Creative Learning Center	K5
CFES	Carlos Finlay Elementary School	K7
CH	College of Health	F7
COL	College of Law	H5
CP	Chemistry & Physics	C6
CSC	Campus Support Complex	J4
CU	Central Utilities	F6
DC	Duplicating Center	G4
DM	Deuxieme Maison	F5
FSC	Engineering & Computer Science	E7
FS	Football Stadium	G2
GC	Graham University Center	D5
GH	Greek Housing	B3
GL	Green Library	E5
HLS	Health & Life Sciences I & II	C6
LC	Labor Center/ELI	G5
LH	Lakeview Residence Housing	F3
MARC	Management and Advanced Research Center	E4
NOAA	National Hurricane Center	K4
OE	Owa Ehan	D6
PA	Pharmed Arena	I5
PCA	Paul L. Cejas School of Architecture	F7
PG B	Blue Parking Garage	D3
PG G	Gold Parking Garage	D4
PG P	Panther Parking Garage	I7
PG R	Red Parking Garage	D8
PH	Panther Residence Hall	G2
PPFAM-PC	Frost Art Museum (Ground Floor, PC)	E4
PPFAM	Patricia & Phillip Frost Art Museum ('07)	E3
RB	Ryder Business Building	G6
RC	Recreation Center	H5
TC	Trailer Complexes	J7, K6
UH	University House	B4
UHSC	University Health Services Complex	G6
UPA	University Park Apartments	B7
UPT	University Park Towers	F3
VH	Viertes Haus	F6
W01C	Ceramics	J5
W3	Key Control	J3
W10	Graduate Studios -Visual Arts	L6
W10A	ROTC-Reserve Officer Training Corps	L6
WC	Wertheim Conservatory	D7
WPAC	Wertheim Performing Arts Center	C2
ZEB	Ziff Education Building	G7

FLORIDA INTERNATIONAL UNIVERSITY

UNIVERSITY PARK CAMPUS
11200 SW 8th Street
Miami, Florida 33199
305-348-2000

BISCAYNE BAY CAMPUS
3000 NE 151st Street
North Miami, Florida 33181
305-919-5500

FIU BROWARD–PINES CENTER
17195 Sheridan Street
Pembroke Pines, Florida 33331
954-438-8600

ENGINEERING CENTER
10555 W. Flagler Street
Miami, Florida 33174
305-348-3034

EMERGENCY – DIAL 5911

AREA CODES:

University Park phone numbers begin with area code 305
Biscayne Bay phone numbers begin with area code 305
FIU Broward–Pines Center phone numbers begin with area code 954
Engineering Center numbers begin with area code 305

From any FIU campus, dial FIU numbers direct:
All University Park phone numbers 7-xxxx
All Biscayne Bay phone numbers 6-xxxx
All FIU Broward–Pines Center phone numbers 6-xxxx
All Engineering Center numbers 7-xxxx

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Florida International University
Member of the State University System
Miami, Florida

2007-2008 UNIVERSITY UNDERGRADUATE CATALOG

TABLE OF CONTENTS

3 Message from President Maidique
4 Academic Calendar
12 University Information
18 Academic Programs
23 Undergraduate Studies
31 The Honors College
33 Academic Affairs
37 Student Affairs
45 Intercollegiate Athletics
46 Continuing and Professional Studies
48 Undergraduate Admissions
51 University Undergraduate Rules and Regulations
60 Tuition and Fees
63 Financial Aid
65 General Information
66 Administration and Staff
69 Academic Units
71 Support Services Phone and Web Addresses
73 Centers and Institutes
75 Florida's Statewide Course Numbering System
79 College of Architecture and The Arts
129 College of Arts and Sciences
315 College of Business Administration
347 College of Education
383 College of Engineering and Computing
457 College of Nursing and Health Sciences
479 College of Social Work, Justice, and Public Affairs
493 Robert Stempel School of Public Health
507 School of Hospitality and Tourism Management
519 School of Journalism and Mass Communication
534 Index
Campus Maps

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Note: The programs, policies, requirements, regulations published in this catalog are continually subject to review in order to serve the needs of the University's various constituencies and to respond to the mandates of the State Board of Education and the Florida Legislature. Changes in programs, policies, requirements, and regulations may be made without advance notice. **The ultimate responsibility for knowing degree requirements imposed upon students by State law rests with students.**

Fees given in this catalog are tentative pending legislative action.

Florida International University
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11200 SW 8th Street
Miami, Florida 33199

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Florida International University
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admiss@fiu.edu

President Modesto A. Maidique

Dear Undergraduate Students and Prospective Students:

Welcome to Florida International University. I want you to know that the faculty and staff at FIU are fully committed to providing you with the best possible academic experiences to assist you in achieving your goals and to prepare you for the world of tomorrow. Whether you are a first-time college student or are returning to school to expand your knowledge, you will, without a doubt, find a large array of opportunities designed to enhance your horizons intellectually, culturally and socially. In this *Undergraduate Catalog* we provide a broad overview of our institution and a list of programs, courses, requirements and services, including a great deal of useful information to guide you through your academic experience. Please take the time to carefully review this important information.

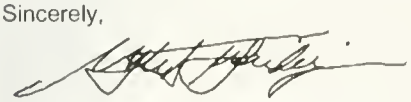
As a leading public research university located in one of the nation's most exciting international cities, FIU offers a rare combination of vast resources, personal attention and affordability. With more than 200 bachelor's, master's and doctoral degree programs, as well as outstanding faculty and an intimate learning environment, we prepare our students for the leading job markets and the latest technologies. Committed to both quality and access, FIU meets the educational needs of traditional students, as well as part-time students and lifelong learners.

FIU has a nationally and internationally renowned full-time faculty known for outstanding teaching and cutting-edge research. *Kiplinger's Personal Finance* magazine ranked FIU among the country's top 50 best values in public higher education in its 2006 annual survey. The university is a member of Phi Beta Kappa, the nation's oldest and most distinguished academic honor society. FIU is ranked as a Research University in the High Research Activity category of the Carnegie Foundation's prestigious classification system. Our students, faculty and alumni continually receive national and international recognition for their achievements.

In March 2006, FIU received approval from the Florida Board of Governors to create a School of Medicine. In establishing South Florida's only public medical school, the university is continuing its tradition of addressing pressing community challenges. With an FIU School of Medicine, FIU students, faculty and alumni will transform medical education and health care in the region and greatly enhance the university's research mission.

On behalf of your fellow students and our faculty and staff, I congratulate you on being admitted to FIU and for deciding to pursue your degree at one of the finest public institutions in the country. I wish you a challenging and fulfilling experience as you work to achieve your goals. I look forward to seeing you on campus.

Sincerely,



Academic Calendar 2007 • 2008

FALL

August 27 – December 6
Final Exams December 10 - 15

February 7 Wednesday	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Fall 2007). Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Summer 2008).
March 16 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in Spring 2008).
April 1 Sunday	Last day for international graduate students to submit admission, readmission and certificate applications.
May 1 Tuesday	Last day for international undergraduate students to submit applications. Last day for beginning Freshmen to submit applications.
May 21 Monday	Transfer Orientation (University Park Campus afternoon session). Undergraduate Studies Advising for Fall 2007 term resumes.
June 1 Friday	Last day for domestic graduate students to submit admission, readmission and certificate applications and all supporting academic credentials and appropriate test scores, if applicable. Last day for international graduate students to submit all supporting academic credentials and appropriate test scores, if applicable. Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores. Last day for transfer undergraduate students to submit applications with supporting academic credentials and appropriate test scores, if applicable.
June 4 Monday	**First day to apply for Fall 2007 term graduation.**
June 6 Wednesday	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Spring 2008). Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Fall 2008).
June 28 & 29 Thurs. & Fri.	Freshman Orientation (Honors College only; University Park Campus).
July 2 Monday	Last day to submit Undergraduate Readmission applications for priority consideration to the University. Transfer Orientation (Honors College only; University Park Campus).
July 5 & 6 Thurs. & Fri.	Freshman Orientation (University Park Campus).
July 6 Friday	Transfer Orientation (Biscayne Bay Campus).
July 9 Monday	Transfer Orientation (University Park Campus).
July 10 Tuesday	Transfer Orientation (University Park Campus).
July 12 & 13 Thurs. & Fri.	Freshman Orientation (University Park and Biscayne Bay Campus).
July 13 Friday	Last day to submit FORM M2: Master's Thesis Proposal (master's students planning to graduate in Fall 2007). Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in Summer 2008).
July 16 Monday	Transfer Orientation (University Park Campus).
July 19 & 20 Thurs. & Fri.	Freshman Orientation (University Park Campus).
July 20 Friday	Transfer Orientation (Biscayne Bay Campus).
July 23& 24 Mon. & Tues.	Freshman Orientation (University Park Campus).
July 26 & 27 Thurs. & Fri.	Freshman Orientation (Biscayne Bay Campus).
July 26 Thursday	Transfer Orientation (University Park Campus).
July 28 Saturday	Transfer Orientation (University Park Campus).
July 30 Monday	**Registration Information and Access Codes available to returning undergraduate students and graduate students for Fall 2007 term.**
July 30 & 31 Mon.& Tues.	Freshman Orientation (University Park Campus).
July 31 & Aug. 1 Tues. &Wed.	Freshman Orientation (Biscayne Bay Campus).
August 2 – 10	**Official Registration (Degree-Seeking Students) only by appointment time and day.**
August 2 Thursday	Transfer Orientation (University Park Campus - Evening Session).
August 3 Friday	Transfer Orientation (University Park and Biscayne Bay Campus).
August 7 Tuesday	Transfer Orientation (University Park Campus).
August 9 & 10 Thurs. & Fri.	Freshman Orientation (University Park Campus).
August 13 & 14 Mon. & Tues.	Freshman Orientation (University Park Campus).

August 13 – 22 Mon. – Wed.	**Open Registration (Degree-Seeking Students). Continuous Web & Kiosk Registration.**
August 13 Monday	Short Term Tuition Loan Applications available.
August 17 Friday	Transfer Orientation (University Park Campus).
August 20 & 21 Mon. & Tues.	**Non-Degree Student Registration Begins.** Freshman Orientation (University Park and Biscayne Bay Campus). (Early Housing Check-In available 8/20 from 9 AM – 5 PM.)*
August 21 Tuesday	Graduate Orientation (University Park Campus). (Early Housing Check-In available August 20 from 9 AM – 5 PM.)*
August 22 Wednesday	**Last day to pay tuition and fees to avoid cancellation of enrollment.** **Last day to register without incurring a $100 late registration fee.** **Any class added after August 22 must be paid for on the same day to avoid a $100 late payment fee.** Last day for students to apply for a Short Term Tuition Loan. Transfer Orientation (University Park and Biscayne Bay Campus). (Early Housing Check-In Available 8/21 from 9 AM – 5 PM.)*
August 22 Wednesday	New Faculty Orientation (Academic Affairs).
August 24 – 26 Fri. - Sun.	Official Housing Check-In (9 AM - 6 PM).
August 24 Friday	International Student Immigration Orientation (University Park and Biscayne Bay Campus). National Student Exchange Orientation (University Park and Biscayne Bay Campus). (Early Housing Check-In available 8/23 from 9 AM – 5 PM.)*
August 26 Sunday	Freshman Convocation (Required of All Freshmen).
August 27 Monday	**Classes begin.**
August 30 Thursday	Freshman Luau (Biscayne Bay Campus) at noon.
August 31 Friday	Last day to have passed CAT-CLAST (computer version of ELS, Reading, and Math subtests) for Fall 2007 Graduation.
September 3 Monday	**Labor Day Holiday (University Closed).**
September 4 Tuesday	**Last day to complete late registration.** **Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring a financial liability.** **Last day to change a grading option.**
September 7 Friday	Last day to register for the CLAST exam (paper-pencil version) on October 6. Last day to register for the CLAST Essay subtest in time for Spring 2008 Graduation.
September 10 Monday	Undergraduate Studies Advising for Spring 2008 term begins.
September 21 Friday	**Last day to apply for graduation for Fall 2007 term. All four subtests of CLAST must be satisfied and reflected in official University records.**
September 21 Friday	**Last day to withdraw from the University with a 25% refund of tuition.**
October 1 Monday	Honors College Convocation.
October 1 – 5 Mon. – Fri.	Faculty Convocation Week.
October 2 Tuesday	Faculty Convocation (Biscayne Bay Campus).
October 5 Friday	Faculty Convocation (University Park Campus).
October 5 Friday	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Summer 2008). Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Spring 2009).
October 6 Saturday	CLAST Examination (paper-pencil version). Last day to take the CLAST Essay subtest for Spring 2008 Graduation.
October 25 Thursday	Last day to submit FORM D5: Preliminary Approval of Dissertation and Request for Oral Defense. Last day to submit FORM M3: Preliminary Approval of Thesis and Request for Oral Defense.
November 2 Friday	**Deadline to drop a course with a DR grade.** **Deadline to withdraw from the University with a WI grade.**
November 8 Thursday	Last day to submit FORM M2: Master's Thesis Proposal (master's students planning to graduate in Spring 2008). Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in Fall 2008).
November 11 Sunday	**Veterans' Day Holiday.**
November 12 Monday	**Veterans' Day Holiday Observed (University Closed).**
November 15 Thursday	Last day to hold thesis/dissertation defense.
November 16 Friday	**Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.**
November 22 & 23 Thurs. & Fri.	**Thanksgiving Holiday (University Closed). No Saturday Classes.**
December 6 Thursday	**Classes end.**
December 6 Thursday	Last day to submit final copies of dissertation and FORM D7: Final Approval of Dissertation. Last day to submit final copies of thesis and FORM M5: Final Approval of Thesis.
December 7 & 8 Fri. & Sat.	**Exam Study Days (No exams given on these days).****
December 10 - 15	**Official Examination Period.**

December 10 Monday	**Grade rosters available to faculty for grade entry and submission.**
December 17-18 Mon. & Tues.	**Commencement Exercises.**
December 19 Wednesday	**Deadline (by 11:59 pm) for faculty to submit grades.**
December 20 Thursday	**Complete grade report available to students by web and at kiosks.**
December 24 Monday	**Winter Break (University Closed).**
December 25 Tuesday	**Christmas Holiday (University Closed).**

SPRING

January 7 – April 17
Final Exams April 21 - 26

September 1 Saturday	Last day for international graduate students to submit admission, readmission and certificate applications. Last day for international undergraduate students to submit applications. Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores.
September 10 Monday	Undergraduate Studies Advising for Spring 2008 term begins.
October 1 Monday	Last day for domestic graduate students to submit admission, readmission and certificate applications and all supporting academic credentials and appropriate test scores, if applicable. Last day for international graduate students to submit all supporting academic credentials and appropriate test scores, if applicable. Last day for undergraduate students to submit applications with supporting academic credentials and appropriate test scores, if applicable.
October 8 Monday	First day to apply for Spring 2008 term graduation.
November 5 Monday	**Registration Information and Access Codes available to returning undergraduate students and graduate students for Spring 2008 term.** Transfer Orientation (Biscayne Bay Campus). Last day to submit undergradaute Readmission applications for priority consideration to the University.
November 6 & 7 Tues. & Wed.	Freshman Orientation (Biscayne Bay Campus).
November 7 & 8 Wed. & Thurs.	Freshman Orientation (University Park Campus).
November 8 Thursday	Last day to submit FORM M2: Master's Thesis Proposal (master's students planning to graduate in Spring 2008). Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in Fall 2008).
November 8 - 21	**Official Registration (Degree-Seeking Students only) by appointment time and day.**
November 9 Friday	Transfer Orientation (University Park Campus).
November 11 Sunday	**Veterans' Day Holiday.**
November 12 Monday	**Veterans' Day Holiday Observed (University Closed).**
November 22 & 23 Thurs. & Fri.	**Thanksgiving Holiday (University Closed). Continuous Web & Kiosk Registration.**
Nov. 26 – Jan. 3	**Open Registration All Students. Continuous Web & Kiosk Registration.**
December 3 Monday	Transfer Orientation (University Park Campus – Evening session).
December 6 & 7 Thurs. & Fri.	Freshman Orientation (University Park Campus).
December 14 Friday	Transfer Orientation (University Park Campus).
December 17 Monday	Short Term Tuition Loan Applications available.
December 24 Monday	**Winter Break (University Closed).**
December 25 Tuesday	**Christmas Holiday (University Closed).**
December 31 Monday	**Winter Break (University Closed).**
January 1 Tuesday	**New Year's Day Holiday (University Closed).**
January 2 Wednesday	Transfer Orientation (University Park Campus). (Early Housing Check-In available 1/2 from 9 AM – 5 PM.)*
January 2 & 3 Wed. & Thurs.	Freshman Orientation (Biscayne Bay Campus). (Early Housing Check-In available 1/2 from 9 AM – 5 PM).)*
January 3 & 4 Thurs. & Fri.	Freshman Orientation (University Park Campus). (Early Housing Check-In available 1/2 from 9 AM – 5 PM.)* Financial Aid Applications available for 2008-2009.

January 3 Thursday	**Last day for returning students to pay tuition and fees to avoid cancellation of enrollment.** **Last day for returning students to register without incurring a $100.00 late registration fee.** **Any class added after January 3 must be paid for on the same day to avoid a $100 late payment fee.** Last day for students to apply for a Short Term Tuition Loan.
January 4 Friday	International Student Immigration Orientation (University Park and Biscayne Bay Campus). National Student Exchange Orientation (University Park and Biscayne Bay Campus). (Early Housing Check-In available 1/3 from 9 AM – 5 PM.)* Transfer Orientation (Biscayne Bay Campus). (Early Housing Check-In available 1/3 from 9 AM – 5 PM.)*
January 4 – 6 Fri. – Sun.	Official Housing Check-In (9 am - 6 pm).
January 7 Monday	**Classes Begin.**
January 14 Monday	**Last day to complete late registration.** **Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring a financial liability.** **Last day to change grading option.**
January 18 Friday	Last day to register for the CLAST exam (paper-pencil version) on February 16. Last day to register for the CLAST Essay subtest in time for Summer 2008 Graduation. Last day to have passed CAT-CLAST (computer version of ELS, Reading, and Math subtests) for Spring 2008 Graduation.
January 21 Monday	**Martin Luther King Holiday (University Closed).**
January 22 Tuesday	Undergraduate Studies Advising for Summer 2008/Fall 2008 terms begins. Last day for International Students to submit applications for Summer term admission.
February 1 Friday	**Last day to withdraw from the University with a 25% refund of tuition.**
February 8 Friday	**Last day to apply for graduation for Spring 2008 term. All four subtests of CLAST must be satisfied and reflected in official University records.**
February 16 Saturday	CLAST Exam (paper pencil version). Last day to take the CLAST Essay subtest for Summer 2008 Graduation.
February 22 Friday	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Fall 2008). Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Summer 2009).
March 6 Thursday	Last day to submit FORM D5: Preliminary Approval of Dissertation and Request for Oral Defense. Last day to submit FORM M3: Preliminary Approval of Thesis and Request for Oral Defense.
March 11 Tuesday	**Last day to drop a course with a DR grade.** **Last day to withdraw from the University with a WI grade.**
March 14 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in Spring 2009). Last day to submit FORM M2: Master's Thesis Proposal (master's students planning to graduate in Summer 2008).
March 17 - 22	**Spring Break.**
March 27 Thursday	Last day to hold thesis/dissertation defense.
March 28 Friday	**Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.**
April 17 Thursday	**Classes end.** Last day to submit final copies of dissertation and FORM D7: Final Approval of Dissertation. Last day to submit final copies of thesis and FORM M5: Final Approval of Thesis.
April 18 & 19 Fri. & Sat.	**Exam Study Days (No exams given on these days).****
April 21 - 26	**Official Examination Period.**
April 21 Monday	**Grade rosters available to faculty for grade entry and submission.**
April 28 & 29 Mon. & Tues.	**Commencement Exercises.**
April 30 Wednesday	**Deadline (by 11:59 pm) for faculty to submit grades.**
May 1 Thursday	**Complete grade report available to students by web and at kiosks.**
May 18 Sunday	**College of Law Commencement.**

SUMMER

May 5 - August 9

TERM A

May 5 - June 21

January 22 Tuesday	Undergraduate Studies Advising for Summer 2008/Fall 2008 terms begins.
February 1 Friday	Last day for international graduate students to submit admission, readmission and certificate applications. Last day for international undergraduate students to submit applications.
February 11 Monday	First day to apply for Summer 2008 term graduation.
February 22 Friday	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Fall 2008). Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Summer 2009).
March 1 Saturday	Last day for domestic graduate students to submit admission, readmission and certificate applications and all supporting academic credentials and appropriate test scores, if applicable. Last day for international graduate students to submit all supporting academic credentials and appropriate test scores, if applicable.
March 3 Monday	Last day to submit undergraduate Readmission applications for priority consideration to the University.
March 14 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in Spring 2009). Last day to submit FORM M2: Master's Thesis Proposal (master's students planning to graduate in Summer 2008).
March 28 Friday	Transfer Orientation (Biscayne Bay Campus).
March 31 Monday	**Registration Information and Access Codes available to all returning undergraduate students and all graduate students for Summer 2008 term.**
April 1 Tuesday	Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores. Last day for undergraduate students to submit applications with supporting academic credentials and appropriate test scores, if applicable.
April 3 Thursday	Transfer Orientation (University Park Campus).
April 3 -16	**Official Registration (Degree Seeking Students only) by appointment time and day.**
April 10 Thursday	Transfer Orientation (University Park Campus – Evening session).
April 17 – May 2	**Open Registration All Students. Continuous Web & Kiosk Registration.**
April 25 Friday	Short Term Tuition Loan Applications available.
May 1 Thursday	Transfer Orientation (University Park Campus).
May 2 Friday	Last day to have passed CAT-CLAST (computer version of ELS, Reading, and Math subtests) for Summer 2008 Graduation.
May 2 Friday	**Last day to pay tuition and fees for all Summer A, B and C classes added by May 2 to avoid cancellation.** **Last day to register without incurring a $100 late registration fee. Any class added after May 2 must be paid for on the same day to avoid a $100 late payment fee.** Transfer Orientation (Biscayne Bay Campus). Last day for students to apply for a Short Term Tuition Loan.
May 2 Friday	International Student Immigration Orientation (University Park Campus and Biscayne Bay Campus). (Early Housing Check-In available 5/1 from 9 AM – 5 PM.)*
May 2 - 4 Fri. – Sun.	Official Housing Check-In (9 am - 6 pm).
May 5 Monday	**Classes begin.** Undergraduate Studies Advising for Summer B 2008/Fall 2008 terms resumes.
May 9 Friday	Last day to register for the CLAST exam (paper-pencil version) on June 7. Last day to register for the CLAST Essay subtest in time for Fall 2008 Graduation.
May 12 Monday	**Last day to complete late registration.** **Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring a financial liability.** **Last day to change grading option.**
May 16 Friday	**Last day to withdraw from the University with a 25% refund of tuition.**
May 23 Friday	**Last day to apply for graduation for Summer 2008. All four subtests of CLAST must be satisfied and reflected in official University records.**

May 26 Monday	**Memorial Day Holiday (University Closed).**
June 2 Monday	**Last day to drop a course with a DR grade.**
	Last day to withdraw from the University with a WI grade.
June 6 Friday	**Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.**
	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Spring 2009).
	Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Fall 2009).
June 7 Saturday	CLAST Examination (paper-pencil version). Last day to take the CLAST Essay subtest for Fall 2008 Graduation.
June 18 - 23 Wed. – Mon.	**Grade rosters available to faculty for grade entry and submission.**
June 19 Thursday	**Classes end.**
June 23 Monday	**Deadline (by 11:59 pm) for faculty to submit grades.**
June 24 Tuesday	**Complete grade report available to students by web and kiosks.** ***

TERM B

June 25 - August 9

February 1 Friday	Last day for international graduate students to submit admission, readmission and certificate applications.
	Last day for international undergraduate students to submit applications.
February 22 Friday	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Fall 2008).
	Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Summer 2009).
March 1 Saturday	Last day for domestic graduate students to submit admission, readmission, and certificate applications and supporting academic credentials and appropriate test scores, if applicable.
	Last day for international graduate students to submit all supporting academic credentials and appropriate test scores.
March 14 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in Spring 2009).
	Last day to submit FORM M2: Master's Thesis Proposal (master's students planning to graduate in Summer 2008).
March 28 Friday	Transfer Orientation (Biscayne Bay Campus).
April 1 Tuesday	Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores.
April 3 Thursday	Transfer Orientation (University Park Campus).
April 10 Thursday	Transfer Orientation (University Park Campus – Evening session).
May 1 Thursday	Transfer Orientation (University Park Campus).
May 2 Friday	Transfer Orientation (Biscayne Bay Campus).
May 5 Monday	Undergraduate Studies Advising begins for Summer B.
May 23 Friday	Last day to submit undergraduate Readmission applications for priority consideration to the University.
June 2 Monday	**Summer Term B registration resumes.**
June 2 & 3 Mon. & Tues.	Freshman Orientation (University Park Campus).
June 5 & 6 Thurs. & Fri.	Freshman Orientation (University Park Campus).
June 6 Friday	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Spring 2009).
	Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Fall 2009).
June 9 & 10 Mon. & Tues.	Freshman Orientation (University Park Campus and Biscayne Bay Campus).
June 12 &13 Thurs. & Fri.	Freshman Orientation (University Park Campus and Biscayne Bay Campus).
June 16 & 17 Mon. & Tues.	Freshman Orientation (University Park Campus).
June 19 & 20 Thurs. & Fri.	Freshman Orientation (Biscayne Bay Campus).
June 20 Friday	Transfer Orientation (University Park Campus).
June 23 & 24 Mon. & Tues.	Freshman Orientation (University Park Campus).
	Official Housing Check-In 9 am to 6 pm for Summer Term B.
June 24 Tuesday	International Student Immigration Orientation (University Park & Biscayne Bay Campus).

June 24 Tuesday	**Last day to pay tuition and fees to avoid cancellation of enrollment.** **Last day to register without incurring a $100 late registration fee.** **Any class added after June 24 must be paid for on the same day to avoid a $100 late payment fee.** Last day for students to apply for a Short Term Tuition Loan.
June 25 Wednesday	**Classes begin.**
June 27 Friday	Last day to submit FORM D5: Preliminary Approval of Dissertation and Request for Oral Defense. Last day to submit FORM M3: Preliminary Approval of Thesis and Request for Oral Defense.
July 2 Wednesday	**Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring a financial liability.** **Last day to change grading option.** **Last day to complete late registration.**
July 4 Friday	**Independence Day (University Closed).**
July 8 Tuesday	**Last day to withdraw from the University with a 25% refund of tuition.**
July 11 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in Summer 2009). Last day to submit FORM M2: Master's Thesis Proposal (master's students planning to graduate in Fall 2008).
July 18 Friday	Last day to hold thesis/dissertation defense.
July 22 Tuesday	**Last day to drop a course with a DR grade.** **Last day to withdraw from the University with a WI grade.**
July 25 Friday	**Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.**
August 7 – 15 Thurs. – Fri.	**Grade rosters available to faculty for grade entry and submission.**
August 8 Friday	Last day to submit final copies of dissertation and FORM D7: Final Approval of Dissertation. Last day to submit final copies of thesis and FORM M5: Final Approval of Thesis.
August 9 Saturday	**Classes end.**
August 15 Friday	**Deadline (by 11:59 pm) for faculty to submit grades.**
August 16 Saturday	**Complete grade report available to students by web and kiosks.**

TERM C

May 5 - August 9

February 1 Friday	Last day for international graduate students to submit admission, readmission and certificate applications. Last day for international undergraduate students to submit applications. Last day for international undergraduate students to apply for readmission to the University.
February 11Monday	First day to apply for Summer 2008 term graduation.
February 22 Friday	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Fall 2008). Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Summer 2009).
March 1 Saturday	Last day for domestic graduate students to submit admission, readmission, and certificate applications and supporting academic credentials and appropriate test scores, if applicable. Last day for international undergraduate students to submit all supporting academic credentials and appropriate test scores. Last day for undergraduate students to submit applications with supporting academic credentials and appropriate test scores, if applicable. Last day for international graduate students to submit all supporting academic credentials.
March 3 Monday	Last day to submit undergraduate Readmission applications for priority consideration to the University.
March 14 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in Spring 2009). Last day to submit FORM M2: Master's Thesis Proposal (master's students planning to graduate in Summer 2008).
March 28 Friday	Transfer Orientation (Biscayne Bay Campus).
March 31 Monday	**Registration Information and Access Codes available to all returning undergraduate and graduate students for Summer 2008 term.**
April 3 Thursday	Transfer Orientation (University Park Campus).
April 3 - 16	**Official Registration (Degree-Seeking Students only) by appointment time and day.**

April 10 Thursday	Transfer Orientation (University Park – Evening session).
April 17 – May 2	**Open Registration All Students. Continuous Web & Kiosk Registration.**
April 25 Friday	Short Term Tuition Loan Applications available.
May 1 Thursday	Transfer Orientation (University Park Campus).
May 2 Friday	Last day to have passed CAT-CLAST (computer version of ELS, Reading, and Math subtests) for Summer 2008 Graduation.
May 2 Friday	**Last day to pay tuition and fees to avoid cancellation of enrollment.** **Last day to register without incurring a $100 late registration fee. Any class added after May 2 must be paid for on the same day to avoid a $100 late payment fee.** Transfer Orientation (Biscayne Bay Campus). Last day for students to apply for a Short Term Tuition Loan.
May 2 Friday	International Student Immigration Orientation (University Park and Biscayne Bay Campus). (Early Housing Check-In available 5/1 from 9 AM – 5 PM.)*
May 2 – 4 Fri. – Sun.	Official Housing Check-In 9 am to 6 pm for Summer Term C.
May 5 Monday	**Classes begin.**
May 5 Monday	Undergraduate Studies Advising for Fall 2008 term resumes.
May 9 Friday	Last day to register for the CLAST exam (paper-pencil version) on June 7. Last day to register for the CLAST Essay subtest in time for Fall 2008 Graduation.
May 12 Monday	**Last day to complete late registration.** **Drop/Add Period ends; last day to drop courses or withdraw from the University without incurring a financial liability.** **Last day to change grading option.**
May 23 Friday	**Last day to apply for Summer 2008 graduation. All four subtests of CLAST must be satisfied and reflected in official University records.**
May 26 Monday	**Memorial Day Holiday (University Closed).**
June 2 Monday	**Last day to withdraw from the University with a 25% refund of tuition.**
June 6 Friday	Last day to submit FORM M1: Appointment of Thesis Committee (master's students planning to graduate in Spring 2009). Last day to submit FORM D1: Appointment of Dissertation Committee (doctoral students planning to graduate in Fall 2009).
June 7 Saturday	CLAST Examination (paper-pencil version). Last day to take the CLAST Essay subtest for Fall 2008 Graduation.
June 27 Friday	Last day to submit FORM D5: Preliminary Approval of Dissertation and Request for Oral Defense. Last day to submit FORM M3: Preliminary Approval of Thesis and Request for Oral Defense.
July 3 Thursday	**Last day to drop a course with a DR grade.** **Last day to withdraw from the University with a WI grade.**
July 4 Friday	**Independence Day (University Closed).**
July 11 Friday	Last day to submit FORM D3: Doctoral Dissertation Proposal (doctoral students planning to graduate in **Summer 2009**). Last day to submit FORM M2: Master's Thesis Proposal (master's students planning to graduate in Fall 2008). Last day to hold thesis/dissertation defense.
July 25 Friday	**Deadline for faculty to review class rosters to ensure accuracy before grade rosters are created.**
August 7 – 15 Thurs. – Fri.	**Grades rosters available to faculty for grade entry and submission.**
August 8 Friday	Last day to submit final copies of dissertation and FORM D7: Final Approval of Dissertation. Last day to submit final copies of thesis and FORM M5: Final Approval of Thesis.
August 9 Saturday	**Classes end.**
August 15 Friday	**Deadline (by 11:59 pm) for faculty to submit grades.**
August 16 Saturday	**Complete grade report available to students by web and kiosks.**
August 25 Monday	**Fall 2008 semester classes begin.**

*Early Housing Check-in is available **ONLY** for residents registered for these Orientations **AND** who live outside Dade and Broward Counties. Early Housing Check-in is subject to a daily fee charge that is based on the housing assignment room rate.
**Labs, clinical placements, internships, Friday only and Saturday only classes are exempt from Exam Study Days.
***Grades will be posted on transcripts. However, graduation will not be processed until the end of the Complete Summer C Term.

Calendar dates are subject to change. Please contact appropriate offices for verification and updates. University Graduate School deadlines are available at http://gradschool.fiu.edu. This calendar includes official University holidays. Faculty are encouraged to make accommodations for students who wish to observe religious holidays. Students should make their requests known at the beginning of the semester. For a listing of religious holidays you may visit http://www.interfaithcalendar.org.

University Information

FLORIDA BOARD OF EDUCATION

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UNIVERSITY ADMINISTRATION

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Ray Thomlison	*Dean, College of Social Work, Justice, and Public Affairs*
George Walker	*Dean, University Graduate School*
Joseph J. West	*Dean, School of Hospitality and Tourism Management*

University Mission

Florida International University is an urban, multi-campus, research university serving southeast Florida, the state, the nation, and the international community. Our mission is to impart knowledge through excellent teaching, promote public service, discover new knowledge, solve problems through research, and foster creativity.

UNIVERSITY VALUES STATEMENT

As an institution of higher learning, Florida International University is committed to:

- Freedom of thought and expression
- Excellence in teaching and in the pursuit, generation, dissemination, and application of knowledge
- Respect for the dignity of the individual
- Respect for the environment
- Honesty, integrity and truth
- Diversity
- Strategic, operational, and service excellence

THE UNIVERSITY

Florida International University – Miami's public research university – is one of America's most dynamic institutions of higher learning. Since opening in 1972, FIU has achieved many benchmarks of excellence that have taken other universities more than a century to reach. FIU, a member institution of the State University System of Florida, was established by the Florida Legislature in 1965. Classes began in September 1972, with 5,667 students enrolled in upper division and graduate programs – the largest opening day enrollment in the history of American higher education. In 1984, FIU received authority to begin offering degree programs at the doctoral level, and in 1994, the Carnegie Foundation for the Advancement of Teaching classified FIU as a Doctoral I University. In 2005 FIU was classified by the Carnegie

Foundation as a Research University/High Research Activity.

Modesto A. (Mitch) Maidique is FIU's fourth president. Appointed in 1986, the former Harvard Business School professor and high-tech entrepreneur received his Ph.D. in Electrical Engineering from the Massachusetts Institute of Technology and was associated with MIT, Harvard, and Stanford for 20 years. President Maidique has built on the sound foundation laid by his predecessors – Charles E. Perry, FIU's first president, appointed in July 1969; Harold B. Crosby, who succeeded in June 1976; and Gregory B. Wolfe, named the third president in February 1979.

FIU has nationally and internationally renowned faculty known for their outstanding teaching and cutting-edge research; students from throughout the U.S. and more than 130 foreign countries; and alumni who have risen to prominence in every field and are a testament to the University's academic excellence. The University is a member of Phi Beta Kappa, the nation's oldest and most distinguished academic honor society. Florida International University offers more than 190 baccalaureate, master's and doctoral degree programs in 19 colleges and schools: College of Architecture and the Arts; College of Arts and Sciences; College of Business Administration (School of Accounting, Chapman Graduate School); College of Education; College of Engineering and Computing (School of Computing and Information Sciences); College of Nursing and Health Sciences; College of Social Work, Justice, and Public Affairs; Honors College; Robert Stempel School of Public Health; School of Journalism and Mass Communication; School of Hospitality and Tourism Management; College of Law; and the University Graduate School.

FIU has more than 37,809 students, 1,100 full-time faculty, and 115,000 alumni, making it the largest university in South Florida and placing it among the nation's largest colleges and universities. The University has two campuses – University Park in western Miami-Dade County and the Biscayne Bay Campus in northeast Miami-Dade County – and an educational facility at the Pines Educational Center in nearby Broward County. Additionally, numerous programs are offered at off-campus locations and online. *U.S. News & World Report* has ranked FIU among the top 100 public national universities in its annual survey of "America's Best Colleges." FIU has been recognized as one of the top 10 public commuter universities in the nation by *Money*. *Kiplinger's Personal Finance Magazine* ranked FIU as the country's 18th best value in public higher education.

Research is a major component of our mission. The purpose of the Office of Research is to facilitate new discoveries and thereby improve the quality of life in our region, the state and the larger international community through research. We are particularly interested in environmental quality, energy, health, water quality, sustainable communities, economic development, security and safety. Multidisciplinary teams, information technology and international culture are among the major themes in our research.

FIU is one of the nation's major research universities and we expend approximately $100 million annually on research. Our research is funded by more than 200 public and private organizations, and in terms of dollar value, our largest sponsor is the Federal Government with funding from 41 different Federal agencies. The University has many specialized research facilities including a new nano scale research and fabrication laboratory. We also conduct many studies "off site" throughout the United States and the world. Undergraduate and graduate students participate actively in all of our research endeavors. FIU exports its discoveries for public benefit through publications, formal technology transfer agreements, public testimony and evidence-based advocacy.

UNIVERSITY PARK

The University Park Campus is a 344 acre site on the western edge of Miami, the center of a metropolitan area of almost four million people. Apartment-style residence halls, the PharMed Arena, a nationally certified environmental preserve, and athletic facilities all contribute to a pleasant collegiate atmosphere on University Park, which is also Florida International University's largest campus. FIU's University Park (UP) has an impressive campus architecture, lush tropical landscaping, the Martin Z. Margulies Sculpture Park, recognized nationally as one of the world's most important collections of sculpture and the largest on a university campus, and an eight-story, $30 million library. There is also a state-of-the-art performing arts center, a new fitness center, an expanded university center, a 4,500 seat PharMed Arena and a 17,500 seat football stadium. University Park also has laboratories, auditoriums, music and art studios, an art museum, an international conference theater, an experimental theater and many student organizations including the prestigious Phi Beta Kappa Honor Society. There is a wide variety of clubs on campus to meet the professional, service, athletic, social, and cultural needs of the FIU community.

The Green Library at University Park is the largest in South Florida. FIU's libraries at University Park and Biscayne Bay Campus have more than 1.6 million volumes, 19,000 journals (5,000 online), 300 databases, 158,000 audio-visual units, and 3.4 million microform units, along with substantial holdings of federal, state, local, and international documents, maps, institutional archives, and curriculum materials. In addition to its own holdings, the libraries can access those of other universities nationally.

Recent additions to University Park include University House; the Paul L. Cejas School of Architecture building designed by Bernard Tschumi; a 221,000 square-foot Health and Life Sciences complex (HLS I & II); a Health & Wellness Center; a 50,000 square-foot Recreation Center; an 83,000 square-foot Management and Advancement Research Center (MARC); and four parking garages with over 4,900 additional parking spaces. The Graham Center, currently approximately 270,000 square feet, includes an expanded Barnes & Noble bookstore with a café and new Campus Life offices in the second floor addition. A new food court and shops have been added.

Residence halls at University Park include Panther Hall, Everglades Hall, University Park Towers, and the University Apartments. Lakeview Housing will open in Fall 2006. Housing staff assist students in selecting accommodations to meet their particular needs. Housing for married students is available on a limited basis. Graduate housing is also limited and applications should be submitted as early as possible.

UNIVERSITY PARK

BISCAYNE BAY CAMPUS

The Biscayne Bay Campus of Florida International University is located on 200 acres on the waterfront of Biscayne Bay and has an enrollment in excess of 8000 students. The campus is headquarters for academic programs in Hospitality and Tourism Management, Journalism and Mass Communication, Marine Science, and Creative Writing. Programs in Arts and Sciences, Business Administration, Architecture and the Arts, Computer Science, Nursing, and Criminal Justice are also offered (for specific degree programs please refer to Academic Programs in this catalog).

The Biscayne Bay Campus is also the hub of Continuing and Professional Studies (CAPS). The Biscayne Bay Campus houses the Osher Lifelong Learning Institute, the International Media Center, the Institute for Public Opinion Research, Center on Aging, and the Roz and Cal Kovens Conference Center. The Roz and Cal Kovens Conference Center is a state-of-the art conference facility located on Biscayne Bay.

Apartment-style residential housing on the Biscayne Bay Campus accommodates 276 students. The Wolfe University Center is the focal point of all student activities and student life. The campus also provides a Health and Wellness Center. Expansion of the Wolfe University Center, to be completed Fall 2007, will provide additional dining choices and a new Recreation Center. An active, award winning Science Club serves the interest of research oriented undergraduates.

The campus is administered by the Office of the Vice Provost for Biscayne Bay Campus. This office includes representatives from the Divisions of Academic Affairs, Business and Finance, Student Affairs, Human Resources, University Advancement, and the Biscayne Bay Society.

BISCAYNE BAY CAMPUS

BROWARD PINES CENTER

Florida International University has brought higher education closer to home for thousands of South Broward residents through its Pines Center at the Academic Village in Pembroke Pines. Classes are held in a state-of-the-art 90,000 square foot facility that includes spacious classrooms, computer labs, case study rooms, a student lounge and a 450-seat auditorium. FIU Broward Pines Center shares the Academic Village with Broward Community College, the City of Pembroke Pines Charter High School and Southwest Regional Library.

Currently select programs at the bachelor's, master's and doctoral level are being offered by the College of Arts and Sciences, College of Business Administration, College of Education, College of Engineering, and the College of Health and Urban Affairs. For specific degree programs, please refer to the Broward Pines Center link on the University home page, as well as the relevant pages in this catalog. In addition to degree-seeking programs, the English Language Institute and Continuing and Professional Studies offer non-credit courses.

Students attending the Pines Center benefit from well-equipped computer labs and access to the resources of both the FIU libraries (University Park and Biscayne Bay Campus) and the Broward County Southwest Regional Library. The Broward Student Government Association sponsors social and cultural events that provide students with opportunities to enhance their experiences outside of the classroom.

For additional information on the Broward Pines Center visit http://broward.fiu.edu or contact us directly at 954-438-8600.

BROWARD PINES CENTER

Accreditations

All academic programs of Florida International University are approved by the Florida Board of Education, the FIU Board of Trustees and the Florida Board of Governors. The University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; telephone number 404-679-4501) to award the baccalaureate, master's, and doctoral degrees. SACS reaffirmed FIU's accreditation on December 5, 2000. Degree programs at FIU are accredited or approved by the appropriate specialized accreditation agency, or are pursuing full accreditation or approval. To obtain information about the specialized accreditation agencies, their criteria and review process, contact the Chairperson/Director of the respective degree program. The professional accrediting agencies and the respective FIU degree programs are listed in alphabetical order below.

Accounting
Association to Advance Collegiate Schools of Business (AACSB) International

Anesthesiology Nursing
Council on Accreditation of Nurse Anesthesia Educational Programs (COA)

Architecture
National Architectural Accrediting Board (NAAB)

Art and Art History
National Association of Schools of Art and Design (NASAD)

Art Museum
American Association of Museums

Business
Association to Advance Collegiate Schools of Business (AACSB) International

Chemistry
American Chemical Society (ACS) (Certified)

Computer Science
Accreditation Board for Engineering and Technology (ABET)

Construction Management
American Council for Construction Education (ACCE)

Counselor Education: Community Mental Health Counseling
Council for Accreditation of Counseling and Related Educational Programs (CACREP)

Counselor Education: School Counseling
Council for Accreditation of Counseling and Related Educational Programs (CACREP)

Dietetics and Nutrition
Commission on Accreditation for Dietetics Education (CADE)

Education
National Council for Accreditation of Teacher Education (NCATE)

Engineering
Accreditation Board for Engineering and Technology (ABET)

Forensic Science
American Academy of Forensic Sciences

Health Information Systems
American Health Information Management Association (AHIMA)

Health Services Administration
Accrediting Commission on Education for Health Services Administration (ACEHSA)

Journalism and Mass Communication
Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

Landscape Architecture
Landscape Architectural Accreditation Board (LAAB)

Law
American Bar Association (ABA)

Music
National Association of Schools of Music (NASM)

Nursing
National League for Nursing Accrediting Commission (NLNAC)

Occupational Therapy
Accrediting Council for Occupational Therapy Education (ACOTE)

Parks and Recreation
National Recreation and Parks Association/American Association for Leisure and Recreation (NRPA/AALR)

Physical Therapy
Commission on Accreditation in Physical Therapy Education (CAPTE)

Public Administration
National Association of Schools of Public Affairs and Administration (NASPAA)

Public Health
Council on Education for Public Health (CEPH)

Social Work
Council on Social Work Education (CSWE)

Speech Language Pathology
American Speech-Language-Hearing Association (ASHA)

Theatre
National Association of Schools of Theatre (NAST)

Academic Programs

UNIVERSITY PARK PROGRAMS

COLLEGE OF ARCHITECTURE AND THE ARTS

BACHELOR OF ARTS IN:
- Architecture
- Art History
- Dance
- Music
- Theatre

BACHELOR OF FINE ARTS IN:
- Art
- Theatre

BACHELOR OF INTERIOR DESIGN
BACHELOR OF LANDSCAPE ARCHITECTURE
BACHELOR OF MUSIC
BACHELOR OF SCIENCE IN MUSIC EDUCATION

COLLEGE OF ARTS AND SCIENCES

BACHELOR OF ARTS IN:
- Asian Studies
- Chemistry
- Earth Sciences
- Economics
- English
- Environmental Studies
- French
- Geography
- History
- Humanities
- International Relations
- Liberal Studies
- Philosophy
- Physics
- Political Science
- Portuguese
- Psychology
- Religious Studies
- Sociology/Anthropology
- Spanish
- Women's Studies

BACHELOR OF SCIENCE IN:
- Biological Sciences
- Chemistry
- Environmental Studies
- Geosciences
- Marine Biology
- Mathematics
- Mathematical Sciences
- Physics
- Statistics

COLLEGE OF BUSINESS ADMINISTRATION

BACHELOR OF ACCOUNTING
BACHELOR OF BUSINESS ADMINISTRATION WITH MAJORS IN:
- Finance
- Human Resource Management
- International Business
- Management
- Management Information Systems
- Marketing
- Real Estate

COLLEGE OF EDUCATION

BACHELOR OF SCIENCE IN:
- Art Education
- Biology Education
- Chemistry Education
- Early Childhood Education/ESOL
- Elementary Education/ESOL
- English Education/ESOL
- Exercise and Sports Sciences
- French Education
- Mathematics Education
- Parks and Recreation Management
- Physical Education
- Physics Education
- Social Studies Education
- Spanish Education
- Special Education/ESOL

COLLEGE OF ENGINEERING AND COMPUTING

BACHELOR OF ARTS IN:
- Information Technology

BACHELOR OF SCIENCE IN:
- Biomedical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Construction Management
- Electrical Engineering
- Environmental Engineering
- Industrial and Systems Engineering
- Information Technology
- Mechanical Engineering

COLLEGE OF NURSING AND HEALTH SCIENCES

BACHELOR OF SCIENCE IN:
- Health Information Management
- Health Sciences
- Nursing

COLLEGE OF SOCIAL WORK, JUSTICE, AND PUBLIC AFFAIRS

BACHELOR OF SCIENCE IN:
- Criminal Justice
- Social Work

BACHELOR OF PUBLIC ADMINISTRATION

ROBERT STEMPEL SCHOOL OF PUBLIC HEALTH

BACHELOR OF SCIENCE IN:
- Dietetics and Nutrition

BACHELOR OF HEALTH SERVICES ADMINISTRATION

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

BACHELOR OF SCIENCE IN:
- Hospitality Management
- Travel and Tourism Management

SCHOOL OF JOURNALISM AND MASS COMMUNICATION

BACHELOR OF SCIENCE IN:
- Communication

BISCAYNE BAY PROGRAMS

COLLEGE OF ARCHITECTURE AND THE ARTS

BACHELOR OF FINE ARTS WITH CONCENTRATIONS IN:
- Painting
- Photography

COLLEGE OF ARTS AND SCIENCES

BACHELOR OF ARTS IN:
- English
- Humanities
- History
- International Relations
- Liberal Studies
- Psychology
- Sociology/Anthropology

BACHELOR OF SCIENCE IN:
- Marine Biology

ACADEMIC CERTIFICATES IN:
- African New-World Studies
- Law, Ethics, and Society

COLLEGE OF BUSINESS ADMINISTRATION

BACHELOR OF ACCOUNTING*

BACHELOR OF BUSINESS ADMINISTRATION WITH A MAJOR IN:
- Finance*
- Management
- Marketing

COLLEGE OF ENGINEERING AND COMPUTING

BACHELOR OF SCIENCE IN:
- Information Technology

COLLEGE OF NURSING AND HEALTH SCIENCES

- Foreign-Educated MD to BSN

COLLEGE OF SOCIAL WORK, JUSTICE, AND PUBLIC AFFAIRS

BACHELOR OF SCIENCE IN:
- Criminal Justice

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

BACHELOR OF SCIENCE IN:
- Hospitality Management
- Travel and Tourism Management

PROFESSIONAL CERTIFICATES IN:
- Event and Meeting Planning
- Hospitality Administration
- Hospitality Studies
- Hotel/Lodging Management
- Restaurant/Foodservice Management
- Tourism Marketing Communications
- Travel and Tourism Administration
- Travel and Tourism Management

SCHOOL OF JOURNALISM AND MASS COMMUNICATION

BACHELOR OF SCIENCE IN:
- Communication

PROFESSIONAL CERTIFICATE IN:
- Tourism Marketing Communications

**This degree can be completed entirely at BBC, but due to the rotation of courses, it will take longer than an average degree to complete. Make an appointment to speak with a department advisor for specifics.*

BROWARD PINES CENTER

COLLEGE OF ARTS AND SCIENCES

BACHELOR OF ARTS IN:
- Liberal Studies

COLLEGE OF BUSINESS ADMINISTRATION

BACHELOR OF BUSINESS ADMINISTRATION WITH MAJOR IN:
- Management

COLLEGE OF EDUCATION

BACHELOR OF SCIENCE IN:
- Early Childhood Education (Child Development Track)
- Courses for Teacher Education Certification
- Courses in Vocational Education

COLLEGE OF ENGINEERING AND COMPUTING

BACHELOR OF SCIENCE IN:

Construction Management
Engineering Core

Minors

A minor program is an arrangement of courses enabling a student to develop a degree of expertise and knowledge in an area of study in addition to his or her major academic program of study. To receive a minor, a student must also complete the requirements for a baccalaureate degree from the University. A minor is not interdisciplinary.

COLLEGE OF ARCHITECTURE AND THE ARTS

Art
Art History
Dance
Music Composition
Theatre

COLLEGE OF ARTS AND SCIENCES

Asian Studies
Astronomy
Biology
Chemistry
Economics
English
Environmental Studies
French Language and Culture
General Translation Studies
Geology
Geography
History
Humanities
International Relations
Marine Biology
Mathematical Sciences
Mathematics
Philosophy
Physics
Political Science
Portuguese
Psychology
Religious Studies
Sociology/Anthropology
Spanish Language and Culture
Statistics

COLLEGE OF BUSINESS ADMINISTRATION

(for non-Business majors only)
Business
Entrepreneurship
Marketing

COLLEGE OF EDUCATION

Education

COLLEGE OF ENGINEERING AND COMPUTING

Biomedical Engineering
Construction Management
Computer Science
Energy Systems
Engineering Science
Engineering Management
Human Factors Engineering
Manufacturing Systems Engineering
Mechanical Design
Operations Research
Robotics and Mechatronics

(for non-Engineering majors only)
Biomedical Engineering

COLLEGE OF SOCIAL WORK, JUSTICE, AND PUBLIC AFFAIRS

Criminal Justice
Public Administration
Social Welfare

ROBERT STEMPEL SCHOOL OF PUBLIC HEALTH

Health Services Administration
Nutrition

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

Beverage Management
Hospitality Studies
Hotel/Lodging Management
International Hospitality Studies
Restaurant/Food Service Management
Travel and Tourism Management

SCHOOL OF JOURNALISM AND MASS COMMUNICATION

Advertising
Journalism
Mass Communication
Public Relations
Television

CERTIFICATES

Certificate Programs are structured combinations of courses with a common base of interest from one or more disciplines into an area of concentration. Successful completion of a Certificate Program is entered on the student's transcript and records. Two types of certificates are awarded:

ACADEMIC CERTIFICATE

Awarded by an academic unit to a student at the time of awarding a bachelor's degree; or upon completion of the appropriate coursework to a student who already has a bachelor's degree.

An academic certificate shall not be awarded to a student who does not possess either a bachelor's degree or does not complete a bachelor's degree program. An academic certificate is to be interdisciplinary in nature, to the greatest extent possible.

PROFESSIONAL CERTIFICATE

Awarded by an academic unit to an individual who completes the appropriate coursework in the area of concentration. The professional certificate does not need to be interdisciplinary or associated with a degree program.

For details and course requirements, refer to the appropriate section in each College or School.

COLLEGE OF ARCHITECTURE AND THE ARTS

ACADEMIC CERTIFICATES IN:

History and Theory of Architecture
Landscape Architecture

COLLEGE OF ARTS AND SCIENCES

ACADEMIC CERTIFICATES IN:

Actuarial Studies
African-New World Studies
African Studies
Agroecology
American Studies
Ancient Mediterranean Civilization
Asian Studies
Asian Globalization and Latin American Studies
Chinese Studies
Comparative Immunology
Cuban and Cuban American Studies
Environmental Studies
Ethnic Studies
European Studies
Film Studies
Forensic Science
Gerontological Studies
Japanese Studies
Judaic Studies
Labor Studies
Latin American and Caribbean Studies
Law, Ethics and Society
Linguistic Studies
Middle East and Central Asian Studies
National Security Studies
Pre-Modern Cultures
Public Policy Studies
South Asian Area Studies
Women's Studies

PROFESSIONAL CERTIFICATES IN:

Legal Translation and Court Interpreting
Portuguese Translation Studies
Portuguese Interpretation Studies
Professional Language
Translation Studies

COLLEGE OF BUSINESS ADMINISTRATION

ACADEMIC CERTIFICATES IN:

Banking
Entrepreneurship
International Bank Management
Retail Management

COLLEGE OF EDUCATION

PROFESSIONAL CERTIFICATES IN:

Labor Studies and Labor Relations
Recreation Management

COLLEGE OF ENGINEERING AND COMPUTING

PROFESSIONAL CERTIFICATES IN:

Heating, Ventilating and Air Conditioning Design

COLLEGE OF NURSING AND HEALTH SCIENCES

PROFESSIONAL CERTIFICATE IN:

Health Information Coding

COLLEGE OF SOCIAL WORK, JUSTICE, AND PUBLIC AFFAIRS

PROFESSIONAL CERTIFICATES IN:

Child Welfare Services
Professional Leadership Studies
Urban Affairs

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

PROFESSIONAL CERTIFICATES IN:

Event and Meeting Planning
Hospitality Administration
Hospitality Studies
Hotel/Lodging Management
Restaurant/Foodservice Management
Tourism Marketing Communications
Travel and Tourism Administration
Travel and Tourism Management

SCHOOL OF JOURNALISM AND MASS COMMUNICATION

PROFESSIONAL CERTIFICATES IN:

Mass Communication
Media Management
Spanish Language Journalism
Student Media Advising
Tourism Marketing Communications

Evening and Weekend Degree Programs

COLLEGE OF ARTS AND SCIENCES

BACHELOR OF ARTS IN:
- English
- Liberal Studies
- Political Science
- Psychology
- Sociology/Anthropology
- Spanish

COLLEGE OF BUSINESS ADMINISTRATION

BACHELOR OF ACCOUNTING
BACHELOR OF BUSINESS ADMINISTRATION WITH MAJOR IN:
- Finance
- Human Resource Management
- International Business
- Management
- Management Information Systems
- Marketing
- Real Estate

COLLEGE OF ENGINEERING AND COMPUTING

BACHELOR OF SCIENCE IN:
- Computer Engineering
- Computer Science
- Construction Management
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

COLLEGE OF NURSING AND HEALTH SCIENCES

BACHELOR OF SCIENCE IN:
- Nursing (RN-BSN fully online)

COLLEGE OF SOCIAL WORK, JUSTICE, AND PUBLIC AFFAIRS

BACHELOR OF SCIENCE IN:
- Criminal Justice

BACHELOR OF PUBLIC ADMINISTRATION

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

BACHELOR OF SCIENCE IN:
- Hospitality Management
- Travel and Tourism Management

SCHOOL OF JOURNALISM AND MASS COMMUNICATION

BACHELOR OF SCIENCE IN:
- Communication

For additional information, please contact the appropriate college or school.

Some degrees are offered fully online. For more specific information, please visit the program of interest at www.fiu.edu.

Undergraduate Studies

ACADEMIC ADVISING CENTER

Florida International University is committed to helping students achieve their academic and personal goals through quality academic advising. Using a holistic approach to the student's development, advising services provide students with information, guidance, and access to a network of campus resources in order to obtain maximum benefit from their educational experience. Students develop autonomy and decision-making skills, and are expected to assume increasing responsibility for seeking accurate and authoritative information and using it appropriately to make sound academic and life decisions. Service delivery is multi-faceted, combining educational and personal support to meet the assorted needs of diverse students.

Academic advising of students with fewer than 30 semester hours of earned credit is the responsibility of the Academic Advising Center in Undergraduate Studies. When admitted to the University, the student will meet with an advisor who will help plan the student's academic program. Freshmen are required to see an advisor for at least two terms after which continued advising is dependent on their academic performance. Freshmen in good standing are encouraged to continue seeing an advisor. At the completion of 30 semester hours of earned credits, the student can choose an intended major, and after 60 semester hours, a student should officially declare a major. Students with intended or declared majors will be advised by faculty members or professional advisors in their major department.

Academic information is available in PC 249, University Park, and ACI-180, Biscayne Bay Campus.

ENGLISH AND MATH PLACEMENT

Testing is available to students for placement into selected courses. Mandatory placement testing for college preparatory requirements is provided prior to Freshman Orientation and at other designated times during each semester. Students need to consult with an advisor in Undergraduate Studies regarding any questions about test requirements.

UNIVERSITY TESTING CENTER

The University Testing Center coordinates and administers the College-Level Academic Skills Test (CLAST), CAT-CLAST (CLAST on computer), College-Level Examination Program (CLEP), Nurse Entrance Test (NET) and the Florida College Entry-Level Placement Test (CPT) for freshmen. The Center also administers and provides information on other undergraduate and graduate admission tests, along with other professional and individualized distance learning examinations. Additional information is available on the test information line at (305) 348-2441 or by visiting **https://testing.fiu.edu**.

CLAST

The College-Level Academic Skills Test is part of Florida's system of education accountability that satisfies the mandates of Section 229.551(3)(i), Florida Statutes. The CLAST is an achievement test that measures students' attainment of the college-level communication and mathematics skills that were identified by the faculties of community colleges and state universities.

Since August 1, 1984, students in public institutions in Florida have been required to pass the four sub-tests of the CLAST for the award of an Associate in Arts degree, for admission to upper-division status or no later than earning 96 credit hours. There are two exceptions to this rule: 1) anyone seeking an undergraduate degree from a Florida institution and who already has earned an accredited Bachelor's degree; 2) anyone awarded an Associate in Arts degree from a Florida institution before September 1, 1982, and admitted to upper-level status at a Florida institution before August 1, 1984, is not required to take the CLAST.

FIU degree-seeking students may take the CLAST after earning a minimum of 18 credit hours. Regular administrations of the CLAST are scheduled on the first Saturday in October, first Saturday in June and the third Saturday in February. If you are taking the entire CLAST for the first time, you should register for the on-campus administration. The essay section of the CLAST is available only once each semester through the on-campus administration.

The College-Level Academic Skills Test is also available as a computer assisted test, the CAT-CLAST, for the reading, English language skills and mathematics sub-tests. The CAT-CLAST is offered in the University Testing Center at various times during each semester. Online registration is available at **https://testing.fiu.edu**. Students who are not admitted and degree seeking at FIU must receive approval from their home institution prior to the scheduling of an appointment for the CAT-CLAST.

The 1997 Legislature and the State Board of Education approved the following conditions under which any student may be exempt from the CLAST if the student fulfills one or more of the following requirements before completion of the undergraduate degree program. All exemptions are processed by the Registrar's Office.

Alternative based on the SAT or EACT scores (or the equivalent scores on the original SAT, SAT I and ACT score scales). An SAT (beginning March 2005) score of 500 on the Critical Reading section qualifies for an exemption for the essay, English language skills, and reading sub-tests; and a score of 500 on the Math section qualifies for an exemption for the Mathematics sub-test. An EACT score of 21 on the Mathematics section qualifies for an exemption for the Mathematics sub-test; a score of 22 on the Reading section qualifies for an exemption for the reading sub-test; and a score of 21 on the English section qualifies for an exemption for the English language skills and essay sub-tests.

Alternative based on the student's GPA. To exempt the English language skills, reading, and essay sections of the College-Level Academic Skills Test, the student must have earned a 2.5 grade point average in two courses for a minimum of six semester hours of credit from ENC 1101, and ENC 1102 or other equivalent college-level English courses.

To exempt the Mathematics section of the College-Level Academic Skills Test, the student must have earned a 2.5 grade point average in two courses for a minimum of six semester hours of credit from: MAC 1105 or any other MAC course with the last three digits higher than 105;

MGF 1106 or any other MGF course with the last three digits higher than 106; STA 1014 or any other STA course.

CLEP, IB, and AP credits may be accepted for one of the required courses in the evaluation of CLAST exemptions.

The State Board of Education and the Florida Statutes provide special consideration for students in public institutions who have a specific learning disability such that they cannot successfully complete one or more CLAST sub-tests. These students may appeal to an institutional committee for a waiver of the requirement to pass any applicable sub-test(s) of the CLAST.

The State Board of Education and the Florida Statutes permit an institution president, under certain conditions, to grant a waiver from one or more of the CLAST sub-tests. A student who has taken any subtest of the CLAST at least four (4) times and has not earned a passing score may appeal for a waiver of that subtest. Before such a waiver may be approved by an institution president or designee, the waiver must first have been recommended by a majority vote of the institutional committee established to review waiver requests.

UNIVERSITY LEARNING CENTER

The University Learning Center is made up of academic assistance tutoring labs equipped to help students improve their academic skills and their performance in related courses. Included among these skills are reading, writing, English, mathematics, statistics, and training in learning/study skills. Special emphasis is given to those students who need or want assistance passing the College-Level Academic Skills Test (CLAST) and other institutional or national tests.

THE ACADEMY FOR THE ART OF TEACHING

The Academy for the Art of Teaching is a part of Undergraduate Studies, and is dedicated to supporting and advancing the quality of classroom teaching at FIU. It serves both as a resource to the teaching community—faculty, adjuncts, and graduate teaching assistants—and a source for proactive programming focused on enhancing approaches, methodologies and practices of teaching.

Through workshops, individual and departmental consultations, mini grants for research and development, and information dissemination, as well as collaborative programs with other FIU agencies such as the Library, Instructional Technology, and the Graduate Students Association, the Academy reaches out to all those who teach at FIU. Information and assistance can be obtained from the Director of the Academy at GL 120W or (305) 348-4214/3907.

STUDENT ATHLETE ACADEMIC CENTER

The Student Athlete Academic Center provides a range of academic support services for student athletes—including advising, tutoring, and monitoring of academic progress. The Center is located west of the Golden Panther Arena, at the University Park Campus, and has hours of operation to meet the needs of the full-time student athlete. The Center is equipped with a computer laboratory, study carrels, and classrooms. It is staffed with advisors, tutors, and learning specialists. The unit works in conjunction with various university academic departments, as well as with other university support units to ensure the academic success of athletes. For information call (305) 348-6412.

UNIVERSITY CORE CURRICULUM

Undergraduate education seeks to develop productive, creative, and responsible citizens who both shape society and lay the foundation for tomorrow. In addition to exploring areas of specialization, the university experience must provide a venue for investigating the origins and natures of cultures, ideas, and the physical universe and endow graduates with the ability to analyze critically, think sustainably, learn creatively, and express themselves clearly and cogently. Diversity and breadth of experience are essential characteristics of both education and success in our global community.

The University Core Curriculum (UCC) provides the broad, well-defined curriculum that enables graduates to think critically, analytically, and creatively, with a passion to learn and with the skills and ability to assemble, assess, incorporate, and synthesize new knowledge and information; organize and clearly express their knowledge and ideas; and determine the importance and relevance of new ideas through a synthesis of both broad and narrow contexts and the integration of seemingly disparate pieces into a meaningful whole.

The UCC rests upon the belief that a foundational curriculum, shared by students, fosters intellectual development and enhances personal, social, intellectual, and academic relations. Together with concentration in major fields of study, the UCC builds the base that makes future academic and professional excellence possible.

First Year Experience (*one, one-credit course required*): The transition to a university environment is a unique one for first-time university students. FIU's orientation course is designed to facilitate this transition. The First-Year Experience course provides a forum for integrating the FIU experience and for discussing issues promoting intellectual, personal, academic, and social growth and success as a member of the University community. The course introduces students to University policies, procedures, and services; addresses academic and career choices; and enhances study and time-management skills. All students entering the University with fewer than 30 semester hours are required to take this one-credit course, SLS 1501 First-Year Experience.

English Composition (*two, three-credit courses from either sequence required*): A foundation in the critical analysis of issues and texts, both discursive and creative, and in argumentation and persuasion is essential in all university courses. English Composition provides this foundation by encouraging the mastery of written and oral communication models, including the essay and research paper.

For students entering FIU with 30 or fewer credits and for all first-term-in-college students, ENC 1101, Freshman Composition and ENC 1102, Literary Analysis are required.

For students entering FIU with more than 30 credits (who are not first-term-in-college students), ENC 2301, Expository Writing, and one of the following: ENC 3317, Writing Across the Curriculum; or ENC 3311, Advanced Writing and Research; or ENC 3211, Report and Technical Writing are acceptable.

Humanities With Writing (*two, three-credit courses required, one of which must be a historically-oriented course*): In these courses students strengthen the critical reading and writing skills needed to succeed within the University and beyond. Students interact analytically with, and respond critically to, primary and secondary texts in the humanities and learn to integrate the ideas and words of others into their own writing. By writing informed essays, students develop the ability to present ideas logically and sequentially and to provide balanced exposition and critical examination of complex events, positions, arguments, or texts.

In these courses students learn to use writing as a form of inquiry in reflecting critically upon central topics in the humanities, such as individual, moral, and social values; historical perspectives and events; culture and the arts; philosophy; and religious beliefs and practices. Students address themes centered on the traditions; shared values and myths; literary, artistic, historical, and philosophical traditions; and cultural standards and common values which underlie contemporary societies and their historical antecedents.

ENG 2012	Approaches to Literature
*ARC 2701	History of Architecture 1
REL 2011	Religion: Analysis and Interpretation
*POT 3013	Ancient and Medieval Political Theory
*HUM 3306	History of Ideas
*HUM 3214	Ancient Classical Culture and Civilization
*LAH 2020	Latin American Civilization
PHI 2600	Introduction to Ethics
PHI 2011	Philosophical Analysis
*WOH 2001	World Civilization
*EUH 2030	Western Civilization--Europe in the Modern Era
*EUH 2021	Western Civilization Medieval to Modern Europe
*EUH 2011	Western Civilization--Early Europe
*AMH 2002	Modern American Civilization
*AMH 2000	Origins of American Civilization
*PHH 2063	Classics in Philosophy: Introduction to the History of Philosophy

(* indicates a course designated as being "historically oriented").

Quantitative Reasoning (*two, three-credit courses required, at least one of which must be in mathematics*): The requirement aims at preparing students to master concepts and ideas in logic, inductive and deductive reasoning, and abstract and quantitative thinking. Students will become proficient in the art of reasoning critically, solving problems, and analyzing data.

*MAC 2311	Calculus I
*MAC 2312	Calculus II
*MAC 2313	Multivariable Calculus
*MAC 2233	Calculus for Business
*MTG 1993	Geometry for Education
*MGF 1107	The Mathematics of Social Choice and Decision Making
*MGF 1106	Finite Mathematics
*MAC 2147	Pre-Calculus
*MAC 1114	Trigonometry (there is overlap between MAC 2147 and MAC 1114, and both taken together do not fulfill the UCC requirement).
STA 3145	Statistics for the Health Professions
STA 3111	Statistics I
STA 2122	Introduction to Statistics I
STA 2023	Statistics for Business and Economics
COP 2250	Programming in Java
COP 2210	Introduction to Programming

PHI 2100	Introduction to Logic
CGS 2518	Data Analysis

(* indicates a mathematics course).

Social Inquiry (*six credits, three credits in each of the two sub-categories below*): In these courses students investigate social, political, and economic configurations; cultural and psychological features of human life; gender, race/ethnicity, and social class; consciousness and identity; social interactions with the natural environment; and local, national, and global aspects of the human world.

Foundations of Social Inquiry (*one, three-credit course*): Students learn theories and methodologies that underlie these areas of study and enhance their research and analytic skills.

SOP 3015	Social and Personality Development
SOP 3004	Introductory Social Psychology
SYG 3002	Basic Ideas of Sociology
POS 2042	American Government
INP 2002	Introductory Industrial/Organization Psychology
DEP 2000	Human Growth and Development
PSY 2020	Introductory Psychology
ECO 2023	Principles of Microeconomics
ECO 2013	Principles of Macroeconomics
SYG 2010	Social Problems
SYG 2000	Introduction to Sociology
ANT 2000	Introduction to Anthropology
WST 3015	Introduction to Women's Studies
GEO 2000	Introduction to Geography
INR 2001	Introduction to International Relations
AMH 3560	The History of Women in the U.S.
INR 2002	Dynamics of World Politics
POT 3302	Political Ideologies
CPO 2002	Introduction to Comparative Politics

Societies & Identities (*one, three-credit course*): Students compare societies and cultures in local, national, or international contexts and in contemporary or historical perspective.

AFA 2000	African Worlds
EDF 3521	Education in History
ECS 3021	Women, Culture, and Economic Development
ECS 3003	Comparative Economic Systems
SYP 3000	The Individual in Society
SYD 3810	Sociology of Gender
ANT 3641	Myth, Ritual and Mysticism
ANT 3451	Anthropology of Race and Ethnicity
ANT 3212	World Ethnographies
WST 3641	Gay and Lesbian in America
COM 3461	Intercultural/Interracial Communication
REL 3302	Studies in World Religions
EVR 1017	The Global Environment and Society
LBS 3001	Introduction to Labor Studies
GEA 2000	World Regional Geography
INR 3081	Contemporary International Problems
AFH 2000	African Civilizations
CPO 3304	Politics of Latin America
CPO 3103	Politics of Western Europe
EGN 1033	Technology, Humans and Society

Natural Science (*two, three-credit courses, one in the life sciences and one in the physical sciences, and two corresponding one-credit labs*): Our technologically dependent world requires an understanding of the processes that led us here. Learning the basic concepts and ideas of scientific fields provides contact with not just those fields but with how science is done. In these courses students study the scientific method through examination of the foundational theories of modern scientific thought. Students apply scientific principles and theories to problem solving, evaluate scientific statements, and incorporate new information within the context of what is already known.

Emphasizing the essential connection between theory and experiment, the hands-on laboratory experience provides the context for testing scientific theories.

Life Sciences:

GLY 1101	History of Life
EVR 3013	Ecology of South Florida
OCB 2003	Introductory Marine Biology
PCB 2099	Foundations of Human Physiology
MCB 2000	Introductory Microbiology
BSC 1011	General Biology II
BSC 1010	General Biology I
BSC 2023	Human Biology
BOT 1010	Introductory Botany
HUN 2000	Foundations of Nutrition Science

Physical Sciences:

PHY 1020	Understanding the Physical World
PHY 1037	Quarks, Superstrings, and Black Holes
MET 2010	Meteorology and Atmospheric Physics
PHY 2054	Physics Without Calculus II
AST 2004	Stellar Astronomy
PHY 2053	Physics Without Calculus I
PHY 2049	Physics With Calculus II
AST 2003	Solar System Astronomy
PHY 2048	Physics With Calculus I
OCE 3014	Oceanography
GEO 3510	Earth Resources
EVR 3011	Environmental Resources and Pollution
EVR 1001	Introduction to Environmental Sciences
GLY 1010	Introduction to the Earth Sciences
GLY 3039	Environmental Geology
CHM 1033	Survey of Chemistry
CHM 1045	General Chemistry I
CHM 1032	Chemistry and Society

Arts Requirement (*three credit hours*): Art embodies human dreams, visions, and imagination and renders the human experience creatively in sound, movement, performance, design, language, color, shape, and space. Art responds critically to current events, changes in society, and the drama of human life.

In fulfilling this requirement, students will become acquainted with the fundamental aspects of the arts while developing a capacity to understand, appreciate, or experience particular forms. Students address universal themes central to the cultural traditions of the past and present as expressed through the perspectives of the arts.

DAN 2140	Dance in Modern American Culture; 1895-the Present
DAN 2100	Introduction to Dance
DAA 1100	Modern Dance Techniques I
DAA 1200	Ballet Techniques I
ENL 3504	Texts and Contexts: British Literature to 1650
ENL 3506	Texts and Contexts: British Literature Since 1660
ARH 2051	Survey II
CRW 2001	Introduction to Creative Writing
MUH 1011	Music Appreciation
MUH 2116	Evolution of Jazz
MUN 1100	Golden Panther Band

MUN 1380	Master Chorale
MUN 1210	Orchestra
ART 2500	Painting I
ART 2752	Ceramics I
ARH 2050	Survey I
ART 2300	Drawing I
FIL 3001	Introduction to Film Making
THE 2000	Theatre Appreciation
TPP 2100	Introduction to Acting

1. Given that Engineering majors must take a significant number of physical science courses and that their accrediting agency requires that they take substantial course work for their major which leaves them with so little flexibility, students in engineering majors will be allowed to fulfill the Natural Science requirement of the UCC by taking two physical science courses (with labs).

2. Transfer students who have successfully completed MAC 1105 (College Algebra) at another institution prior to admission to FIU will be deemed to have completed one math course for purposes of the UCC

3. Transfer students who have successfully completed one or both science courses without labs at another institution prior to admission to FIU will be deemed to have completed the appropriate components of the science requirement.

4. For students in the Honors College: Honors College students who successfully complete IDH 1001 and IDH 1002 (The Origin of Ideas and The Idea of Origins) will be deemed to have satisfied the Arts requirement of the UCC; Honors College students who successfully complete IDH 1001-IDH 1002 (The Origin Of Ideas and Idea of Origins), IDH 2003-IDH 2004 (Inhabiting Other Lives) will be deemed to have successfully completed the Foundation of Social Inquiry requirement of the UCC; and Honors College students who successfully complete IDH 2003 and IDH 2004 will be deemed to have successfully completed the Societies and Identities requirement of the UCC.

5. Students seeking a second baccalaureate degree will be exempt from the University Core Curriculum requirements if the first baccalaureate degree is from an accredited post-secondary institution of higher learning. However, this would not preclude prerequisites for the major that happen to be general education courses.

6. **State Board of Education Rule 6A-10.030 (Gordon Rule)**

The State of Florida requires all public community colleges and universities to include a specified amount of writing and mathematics in their curriculum to ensure that students have achieved substantial competency in these areas. This requirement must be fulfilled within the first two years of study.

6a. **Writing Requirement** (12 credits)

Students must successfully complete twelve hours of writing courses with a grade of 'C' or better. Six hours must be in composition courses (i.e., courses with the prefix ENC). The additional six hours must be taken in other courses in composition (with the ENC prefix) or in other approved intensive writing course, which require demonstration of college level writing skills through multiple assignments. Students who matriculated prior to 1983 need only six credits of writing courses with an ENC prefix.

6b. **Mathematics** (6 credits)

One course must be at or above College Algebra level.

Students subject to Rule 6A.10.030 need six credits of mathematics, three of which can be a computer programming course, a statistics course, or PHI 2100, Introduction to Logic. A grade of 'C' or higher shall be considered successful completion of this requirement.

Students who matriculated prior to 1983 need only three credits of mathematics, but they must take one mathematics course.

ADDITIONAL POLICIES AND REQUIREMENTS

1. A student who has graduated from a Florida public community college with an Associate in Arts degree will have met the University Core Curriculum requirements.

2. A student who has met the General Education requirements of any institution in the State University System of Florida will have met the University Core Curriculum requirements.

3. A student who has taken the freshman and sophomore years in an accredited college other than a Florida public community college or an institution in the State University System of Florida may receive credit for courses meeting the University Core Curriculum requirements.

4. Students who have been admitted before completing an equivalent general education program must do so at the University prior to graduation.

5. Most departments require for admission to their degree programs certain freshman and sophomore common prerequisite courses in addition to the University Core Curriculum requirements. Applicants should consult the catalog section dealing with the program they wish to pursue to determine the nature and extent of the additional requirements.

FOREIGN LANGUAGE REQUIREMENT

In addition to the above University Core Curriculum requirements, any student who was admitted with a foreign language deficiency must successfully complete two semesters of sequential instruction in one foreign language prior to graduation.

TRANSFER CREDIT

For purposes of clarity, transferability refers to the conditions under which the University accepts credits from other post-secondary institutions. Applicability of credit toward a degree refers to the prerogative of the respective academic division to count specific credit toward a student's degree requirements. Normally, collegiate work will be considered for transfer credit only from post-secondary institutions that are fully accredited by a regional accrediting association. The Office of Admissions will evaluate the acceptability of total credits transferable to the University. Transfer credit will be applied as appropriate to a student's degree program. The authority to apply such credit to the degree rests with the academic division of the student's intended major. If a student chooses to transfer to another academic division within the University, credit previously earned at another post-secondary institution will be re-evaluated and applied as appropriate to the student's new degree program.

A maximum of 60 lower division semester hours taken at a two-year or a four-year institution may be counted

toward a degree at the University. A maximum of 30 upper division semester hours taken at a senior institution may be counted toward a degree at the University.

Lower division courses in excess of 60 semester hours may serve to meet specific course requirements for an FIU degree, but credit hours represented by these courses will not reduce the number of credit hours to be completed at the University.

A grade of 'D' will be accepted for transfer credit, although it may not satisfy specific requirements. However, such a grade in coursework in the major field is subject to review and approval by the appropriate academic department. Credit from military schools will be transferred in accordance with the recommendations of the American Council on Education. Credit from foreign institutions will be considered on an individual basis.

ACCELERATION

The academic programs of the University are planned in such a manner that students may complete some of their degree requirements through one or more of the mechanisms listed below. Specific information on the accelerated mechanisms utilized in each academic program is available from the department or program description of the student's major. Up to 45 total credit-by-exam credits may be awarded.

CREDIT FOR NON-COLLEGE LEARNING

The award of credit for learning acquired outside the university or classroom experience is the prerogative of each academic department or program. Only degree-seeking students are eligible to receive this type of credit. The significant learning must be applicable to the degree program of the student, and should be discussed and appropriately documented at the time the desired program of study is initially discussed and decided with the student's program advisor. A maximum of 6 credit hours will be awarded.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

The College Level Examination Program is designed to measure knowledge in certain subject areas of general education. Credit earned through CLEP examination will reflect as lower division transfer credit. A maximum of 45 semester credits are transferable under CLEP. Students must discuss the transfer of CLEP credits with their academic department. To register for an exam, go to **https://testing.fiu.edu** or contact the University Testing Center at (305) 348-2840.

ADVANCED PLACEMENT

The University awards credit for Advanced Placement test scores of three, four, and five. For University Core Curriculum requirements, only the following examinations will be recognized for credit: Art History, Biology, Calculus, Chemistry, Computer Science A, Computer Science AB, Economics: Macro, Economics: Micro, English (Language and Composition or Literature and Composition), Environmental Science, European History, Government and Politics: Comparative, Government and Politics: United States, Human Geography, Modern Languages or Literature, Music Theory, Physics, Psychology, Statistics, Studio Art: Drawing, 2-D Design and 3-D Design, United States History, World History.

ADVANCED LEVEL PROGRAM

The University awards credit for Advanced Level Programs completed through the College Board, Puerto Rico and Latin America Office, only for scores of 4 or 5 on the Pre-Calculus (Level II) test, 4 or 5 on English, and 3, 4, or 5 on Spanish.

INTERNATIONAL BACCALAUREATE

The International Baccalaureate (IB) program is a comprehensive and rigorous two-year program leading to examinations. Based on the pattern of no single country, it is a deliberate compromise between the specialization required in some national systems and the breadth preferred in others. Florida International University recognizes the quality of the IB program and will award six semester hours of college credit to those students who score a 4, 5, 6, or 7 on each subject at the higher level. Credit is also awarded for Subsidiary examinations with scores of 5, 6, or 7. Up to 30 credits may be granted for the IB diploma.

CAMBRIDGE AICE (A-LEVEL) EXAMS

Florida International University accepts A-Level Examinations for credit according to guidelines established by the Articulation Coordinating Committee in May 2003. For University Core Curriculum requirements, only the following examinations will be recognized for credit: Art and Design, Biology, Chemistry, Computing, Economics, English, Literature in English, Geography, History, Foreign Languages, Foreign Language Literature, Mathematics, Physics, Psychology, and Sociology. AS-Level exams are not accepted as university credits.

NATIONAL STUDENT EXCHANGE

National Student Exchange provides students with the opportunity to study at one of 145 colleges and universities in the United States and its territories for one semester or academic year, while paying in-state tuition. Full credit is given for work satisfactorily completed on exchange. NSE offers the student the opportunity to live in a different geographic setting, explore a particular academic interest, and, of course, make new and lasting friendships with students from all over the United States.

In order to participate in the National Student Exchange, students must be enrolled full-time and have a 2.8 cumulative GPA. For further information contact (305) 348-1292, National Student Exchange office, University Park, CH 210; or ACI-180 at the Biscayne Bay Campus, (305) 919-5754.

INTERNATIONAL STUDENT EXCHANGE PROGRAM

The International Student Exchange (ISE) Program provides students with the opportunity to study abroad (during one or two semesters) at one of the various universities that have an agreement with Florida International University. Full credit is given for work satisfactorily completed during the exchange program as long as it has been pre-approved by an advisor. Grades are not transferred. The International Student Exchange Program offers the opportunity to live abroad, explore other languages and cultures, and become acquainted with new friends from all over the world. Students will be required to pay FIU tuition, insurance, housing, and travel arrangements.

In order to participate in ISE, a student must be enrolled at FIU and have a 3.0 cumulative GPA.

For more information, please contact the Office of Education Abroad located in DM 441, (305) 348-1913, email: **EducationAbroad@fiu.edu**, or **http://educationabroad.fiu.edu**.

STUDY ABROAD PROGRAM

Each year FIU offers a number of Study Abroad Programs through the Office of International Studies, in coordination with different academic units and Continuing and Professional Studies. Most of these programs are under the direction of FIU faculty members who accompany the students abroad. Students receive FIU credit for these programs and scholarships are available. Program locations include Brazil, China, Spain, England, Ireland, Czech Republic, Germany, Italy, Japan, and others. FIU also has exchange agreements with universities throughout the world, through which students can go for a semester and take classes at a partner university in the language of the host country. The Honors College also offers programs in Italy and Spain.

For more information, please contact the Office of Education Abroad located in DM 441, (305) 348-1913, email: **EducationAbroad@fiu.edu**, or **http://educationabroad.fiu.edu**.

PRE-MEDICAL ADVISEMENT

Students interested in entering professional schools of medicine, dentistry, optometry, or veterinary medicine should contact the Coordinator of Pre-medical Advising, Dr. Barbra Roller at **rollerb@fiu.edu** at the earliest possible time. After completing a substantial portion of their professional courses or at the end of their junior year, and prior to the fall term in which they plan to apply to professional schools, students should contact the Chairperson of the Premedical Advisement and Evaluation Committee in the College of Arts and Sciences. The Committee provides additional advisement for students wishing to enter the health professions and prepares recommendations for those applying to professional schools.

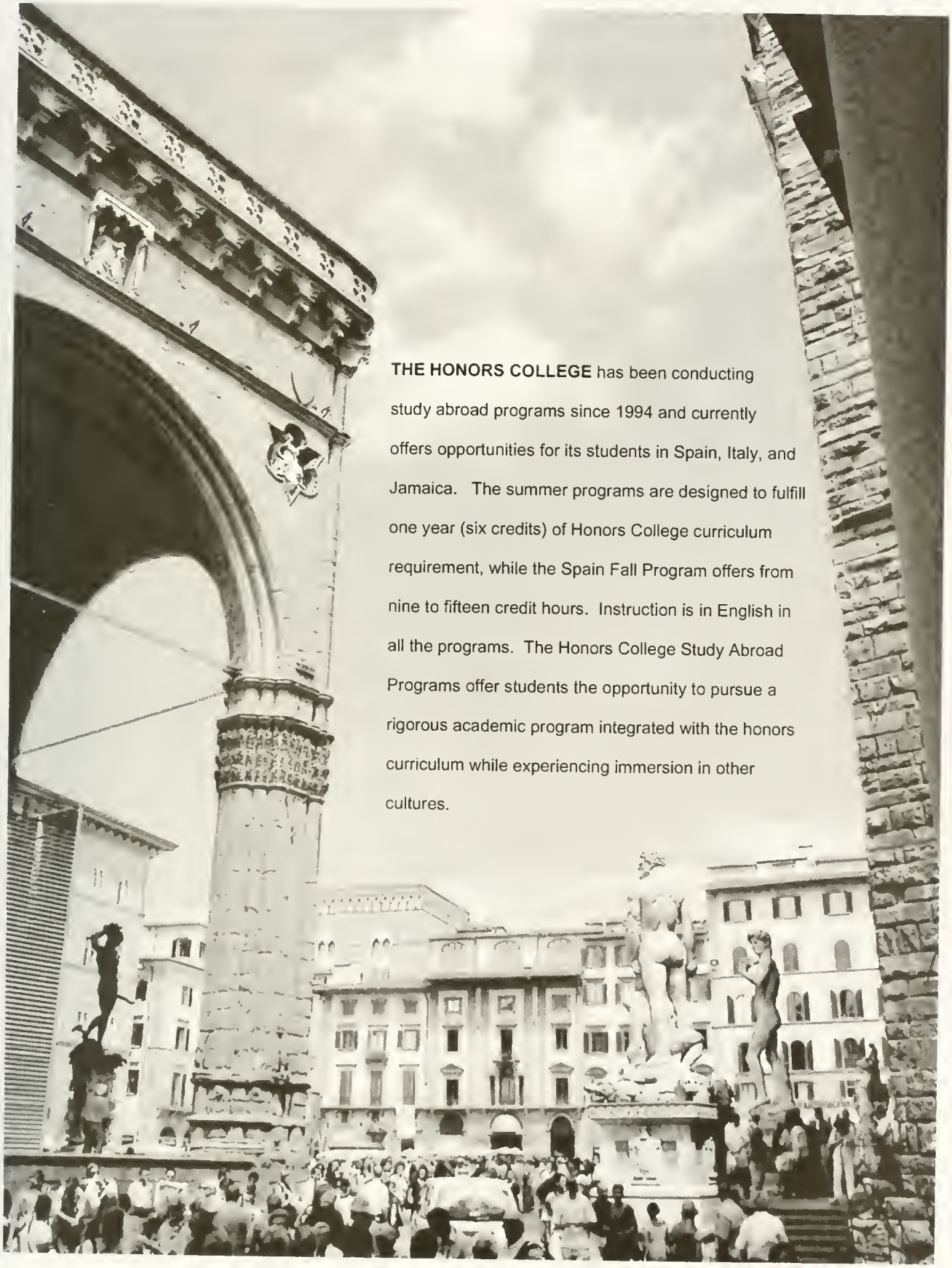
PRE-LAW ADVISEMENT

Students interested in receiving information on Law School/pre-professional education, on application procedures, testing, and references should contact the Department of Political Science or the Department of Philosophy in the College of Arts and Sciences or the Department of Criminal Justice in the College of Health and Urban Affairs. A faculty advisor in these departments will advise students who are seeking information about attending law school. Students are encouraged to visit: http://www.fiu.edu/~casdean/Advising/Pre-Law.htm.

ACADEMIC LEARNING COMPACTS

In accordance with Florida Board of Governors guidelines, Florida International University has developed an Academic Learning Compact for every one of its baccalaureate degrees, accessible through http://www.fiu.edu/~opie/academiclearningcompacts.htm.

The Compacts identify the expected core student learning outcomes for program graduates in the areas of content/discipline knowledge and skills; communication skills; and critical thinking skills. The Compacts will also be posted on collegiate and departmental/program web sites. Students will also be given a hard copy of the Compact for their declared major when they attend their first orientation and advisement session in their academic unit. Students may be expected to participate in a number of activities associated with the Compacts such as answering embedded questions in scheduled exams, creating a portfolio, enrolling in a capstone course, or sitting for a specialized exam. The program or department will notify students of what measurement procedures have been selected for their baccalaureate program.



THE HONORS COLLEGE has been conducting study abroad programs since 1994 and currently offers opportunities for its students in Spain, Italy, and Jamaica. The summer programs are designed to fulfill one year (six credits) of Honors College curriculum requirement, while the Spain Fall Program offers from nine to fifteen credit hours. Instruction is in English in all the programs. The Honors College Study Abroad Programs offer students the opportunity to pursue a rigorous academic program integrated with the honors curriculum while experiencing immersion in other cultures.

The Honors College

The Honors College at Florida International University is a small community of outstanding students, dedicated scholars, and committed teachers who work together in an atmosphere usually associated with small private colleges, using the resources of a major state university.

The Honors College provides a broad foundation for outstanding students who want to get the most out of their undergraduate education. The College provides a broad trans-disciplinary curriculum of unique courses and opportunities to work closely with expert faculty and with the larger community. Opportunities for graduate or professional study and for employment are significantly expanded by the expanded activities, advanced academic experiences, research possibilities, and job and internship opportunities available only to Honors students.

Students may pursue any major available at the University and at the same time complete the Honors curriculum. The curriculum emphasizes critical, integrative, and creative thinking; group and independent research; oral presentation; close contact between students and faculty; and integration of class work with the broader community.

Committed to excellence, professors in the Honors College are carefully selected for their accomplishments as both teachers and scholars, and take great pride in their close association with their students.

In addition to the interdisciplinary curriculum, Honors College students enjoy many other benefits:

- Leadership training for all incoming freshmen
- The Student Research and Artistic Initiative, pairing students and faculty for advanced research
- A Student Enrichment Center that works with students to find job and internship opportunities
- Special scholarship opportunities
- Funding to attend national and international conferences
- Dedicated information technology centers and study rooms
- Priority registration
- Eligibility for membership in Honors College Societies
- Study abroad programs in Italy, Jamaica, Spain, and Peru.
- Graduate-level library borrowing privileges
- Living-learning communities in housing on both campuses
- Transcript notation: "Graduated through the Honors College"

For more information about the Honors College, see the Honors Curriculum in this catalog or visit Honors.fiu.edu.

Academic Affairs

UNIVERSITY LIBRARIES

The University Libraries are housed in the Steven and Dorothea Green Library (GL) at University Park and in the Library Building (LIB) at Biscayne Bay Campus. In addition, there is an Engineering Library Service Center offering a variety of services on the Engineering Campus. The Law Library, located in the College of Law, offers a specialized legal collection. The FIU Wolfsonian Museum Library houses resources for scholars interested in design, art history, material culture, and aesthetic and social movements in Europe and North America. Collectively, these libraries make available over 1.6 million volumes; provide access to a broad range of electronic resources; and offer the latest in electronic library services combined with efficient access to print material.

Library users have access to ILLiad, the latest in automated interlibrary loan systems with journal articles delivered to the desktop; to chat reference service in English and in Spanish; and to a broad range of Information Literacy instructional offerings. Most on-line sources are available 24 hours a day. Most collections are in open stacks and directly available to the public. Special resources and services include: a Geographic Information Systems (GIS) Center; the Everglades Digital Library; and a Virtual Library Tour, all accessible from the library home page (**http://library.fiu.edu**).

The principal libraries maintain an extensive schedule of service hours staying open Sunday-Thursday during the fall and spring semesters until 1 a.m., with more extensive access available during final exams. A number of research carrels are available for assignment to doctoral students.

Currently-registered students may use the libraries of any other institution in the Florida State University System. For access to libraries in the southeast Florida Region, check at the circulation desk concerning SEFLIN library privileges that enable you to borrow books from other libraries in the region.

FROST ART MUSEUM

THE PATRICIA AND PHILLIP FROST ART MUSEUM OVERVIEW / HISTORICAL BACKGROUND

Housed on the University Park Campus, The Patricia & Phillip Frost Art Museum was founded in 1977 as a student gallery and has grown to achieve official recognition. The Museum's growth during the 1980s and 1990s qualified the Frost Art Museum for designation as a Major Cultural Institution by both the State of Florida and Miami-Dade County. Grants from both sources provide stable funding for annual programs. In 1999, the Museum received accreditation from the American Associations of Museums (AAM) and in 2001 became an affiliate of the Smithsonian Institution - the only visual arts museum in the South Florida area to have been granted this prestigious affiliation. The Museum has gained recognition for its innovative exhibitions, outstanding lecture series and various programs for South Florida's diverse audiences all offered free of charge. The Museum exhibits, collects, preserves and interprets an encyclopedic selection of artwork with an emphasis on 20th and 21st century American, Caribbean and Latin American artists.

The Museum is the repository of over 6,000 works of art including Coral Gables' Metropolitan Museum and Art Center Collection, the Oscar B. Cintas Fellows Collection, and the Betty Laird Perry Emerging Artist Collection. In addition, Florida International University is the site of the Martin Z. Margulies Sculpture Park, one of the world's most important international outdoor sculpture collections that includes works by Calder, de Kooning, Nevelson, Serra, Dubuffet and other well known artists.

The Frost Art Museum is recognized locally and nationally for its thought-provoking, innovative and scholarly exhibitions. Drawn from the Museum's permanent collection as well as lending institutions and private collectors, Frost Art Museum-curated exhibitions explore contemporary themes, often revisiting traditional ideas with renewed perspectives. The Museum focuses on presenting exhibitions that are relevant to the region's multi-cultural communities and creates programming that connects the Museum to underserved audiences.

The Frost Art Museum amplifies the impact of its exhibitions with a wide range of regionally unique and nationally recognized educational programs. The Steven & Dorothea Green Critics' Lecture Series and the Latin American & Caribbean Art Lecture Series present South Florida diverse audiences with programming that includes art world luminaries, renowned artists, museum curators, scholars and critics. The Frost Art Museum works with Miami-Dade County Public Schools to deliver interdisciplinary training for teachers and tours that reach more than 12,000 teachers and students annually. Wednesday After-Hours, the Frost Art Museum's Wednesday evening events program, gives visitors the opportunity to engage with the contemporary and confront the controversial with talks, films, live music and art until 9:00 p.m. Designed to complement the Museum's exhibitions, guests enjoy learning through a variety of events including lectures, drum circles, dance performances, poetry slams, and performance art. Wednesday After-Hours provide an excellent opportunity to meet and socialize with other people interested in the arts while learning more about the Museum exhibitions and artists. Wednesday After-Hours are free and open to the public and take place from 7:00 – 9:00 p.m.

Reaffirming its commitment to the excellence of its collections, exhibitions and educational programs, the Museum will continue to broaden its base of support, develop a state-of-the-art facility to define new standards in the field, and serve an increasingly larger and more diverse constituency in the millennium.

The Museum is currently located in PC 110, with a new 46,000 square foot facility under construction. For further information on the Museum and its programs contact the Museum at 305-348-2890 or visit the website: **www.frostartmuseum.org**.

THE WOLFSONIAN-FIU

Located in the heart of Miami Beach's Art Deco District, The Wolfsonian–Florida International University is a museum and research center that serves local, national, and international audiences by promoting the examination, understanding, and appreciation of the ways that design has served as a reflection of societal values and as an active force in the shaping of human experience. The Wolfsonian is accredited by the American Association of Museums. Through thought-provoking exhibitions, publications, research, academic, and public programs, The Wolfsonian-FIU focuses on the meaning of objects and the effect that the Industrial Revolution had on the creation of the modern world. The Wolfsonian became part of FIU in July 1997. Its founder, Mitchell Wolfson Jr., donated to FIU his extraordinary collection of predominately European and North American objects of the 1885 to 1945 period.

The Wolfsonian holds more than 100,000 objects providing rich evidence of the cultural, political, and technological changes that swept the world in the century preceding the end of World War II. The collection features furniture, decorative arts, industrial design, paintings, sculpture, architectural models, works on paper, rare books, and ephemera. Notable among these are Depression era prints and mural studies by WPA artists, items from the British Arts and Crafts and German Design Reform Movements and artifacts of political propaganda.

Permanent, temporary, and traveling shows address broad themes of the nineteenth and twentieth centuries, such as nationalism, political persuasion, industrialization, architecture and urbanism, consumerism and advertising, transportation, and world's fairs. Although drawing primarily on its own holdings, The Wolfsonian also features exhibitions and objects on loan from other collections.

Days, evenings, and weekends, The Wolfsonian offers a range of lectures, films, symposia, tours, and workshops geared to visitors of all ages. It has paired with Miami-Dade County Public Schools to develop activities and interpretive materials for students and teachers in the arts and social sciences. To inquire about an exhibition (present, past, upcoming), program, or the general calendar, or to learn more about the collection and how it can be used for research, please visit **www.wolfsonian.org** or call (305) 531-1001.

The Wolfsonian publishes catalogues to document its exhibitions and collection. It also produces the award-winning *Journal of Decorative and Propaganda Arts*, a

scholarly annual dedicated to exploring the role of art and design in the modern world.

Free admission to exhibitions is provided to all State University Systems faculty, students, and staff with valid ID. In addition, The Wolfsonian is open to the general public. Galleries hours: Monday, Tuesday, Saturday, Sunday: 12:00 noon – 6:00 p.m. Thursday and Friday: 12:00 noon - 9:00 p.m., with free admission after 6:00 p.m. of Friday. Closed Wednesday.

Student Affairs

The Division of Student Affairs seeks to enhance the academic mission of the University by promoting a vast array of educational, social, and cultural opportunities and programs. We believe that a student's education takes place both inside and **outside** the classroom. We aim to provide an environment that supports the growth and development of our students by catering to their social, intellectual, emotional, and spiritual needs. From orientation to job interview skills, volunteer opportunities to multicultural programs, health care screenings to residential life, Student Affairs is here to help you make the most of your college experience.

The following are Student Affairs departments and programs:

CAMPUS LIFE

The Department of Campus Life provides learning communities that expose students to a diversity of ideas and experiences and develop the following skills: leadership, communication, problem-solving, program planning, organization, implementation, evaluation, and most importantly, the opportunity to ***Get Involved on Campus***. Activities such as dances, parties, movies, athletic events, pep rallies, concerts, comedy shows, the lecture series, multicultural theme weeks, and community service are a few of the fun and educational programs offered through the department. Students may form additional organizations and clubs that promote the University's educational mission and the development of one's personal attributes. Campus Life activities are co-curricular and cover all aspects of the educational experiences and personal growth of students. Over 200 registered organizations exist to enrich campus life and contribute to the social, cultural, and academic growth of students.

The Department of Campus Life includes the Student Government Association, Student Organizations Council, Student Programming Council, Honors Council, Greek Organizations, Multifaith Council, the Graduate Student Association, Homecoming Council, Panther Rage, and Panther Power.

Location: GC 2240, University Park, (305) 348-2138; WUC 141, Biscayne Bay Campus, (305) 919-5804.

CHILDREN'S CREATIVE LEARNING CENTER

Established in 1975, the Children's Center, an Educational Research Center for Child Development, is an NAEYC Accredited, Gold Seal Program located on the University Park Campus, and is a department within Student Affairs.

A full day developmentally appropriate hands-on early education program is available for children of students, faculty, staff, alumni, and the neighboring community and is housed in the center's main building on the west side of campus. The program serves children who have achieved bathroom independence between the ages of two and one-half through five years, Monday through Friday, from 7:45 a.m. to 6:00 p.m. with pick-up at 12:00 p.m., 12:30 p.m., or after 3:30 p.m.

A part-time Edu-Care/Flex-Time program is offered to children of students who are three or four years of age and who have achieved bathroom independence. The part-time program is housed in the Graham Center.

Students can contract for blocks of time between the hours of 7:45 a.m. to 5:00 p.m. Monday through Friday. Evening hours are available Monday through Thursday from 5:00 p.m. to 8:00 p.m.

Center enrollment priority is given to children of students. Financial support is available for FIU Pell Grant eligible students. For more information, visit our web site **http://www.fiu.edu/~children**. To request an admission form, stop by the Center or call (305) 348-2143.

SORORITY AND FRATERNITY LIFE

Greek organizations—fraternities and sororities—contribute to the University by promoting leadership, scholarship, service, social activities, and brotherhood and sisterhood.

An Interfraternity Council governs men's fraternities, a National Pan-Hellenic Council governs historically African-American fraternities and sororities, and the Panhellenic Council governs women's fraternities and sororities. The Order of Omega is the honorary leadership society of fraternities and sororities that promotes leadership and scholarship among Greeks. Formal recruitment periods are held each fall semester. However, many fraternities and sororities have informal recruitment events year round.

Location: GC 2240, University Park, (305) 348-1120 or (305) 348-2138, **http://www.fiu.edu/~greeks/.**

STUDENT GOVERNMENT ASSOCIATION

The Student Government Association is comprised of representatives from all Schools and Colleges who are elected by the student body. There is a Student Government Council at both the Biscayne Bay Campus and University Park. SGA is responsible for overseeing and appropriating the Activity and Service (A&S) fees paid by all students each semester. These fees fund many of the campus life events, student activities, and clubs and organizations. SGA also acts as the liaison between the students and administrative areas of the University, specifically speaking, and lobbying on behalf of students.

SGA members represent the student body on University-wide committees and task forces to ensure student representation at the administrative level. SGA meets regularly and students are highly encouraged to attend meetings and become involved in all aspects of Student Government.

Location: GC 211, University Park, (305) 348-2121; WUC 141, Biscayne Bay Campus, (305) 919-5680.

CENTER FOR LEADERSHIP AND SERVICE

The Center for Leadership & Service (CLS) provides students with developmental and experiential opportunities that foster leadership and community involvement, grounded in values and moral purpose. Through leadership education, service learning, advocacy, and volunteerism, students will become active citizens on campus, in their respective communities, and in the workplace.

Leadership education is both curricular (for credit) and co-curricular (non-credit). IHS 3204 Exploring Leadership is a three-credit introductory leadership course open to all students. The course is part of an academic certificate in Professional Leadership Studies. Non-credit leadership development programs range from one-hour skill building workshops, to semester-based programs, to a year-long living/learning community on campus. All of these programs are interactive and experiential in nature and are offered at a variety of times to accommodate our diverse student population. Programs are developmental in nature, so students can begin with an entry-level program and progress to more advanced leadership training while at FIU. Consult the department website for program descriptions and application details, **www.fiu.edu/~cls.**

CLS is also the central office for service development, by offering a clearinghouse and resource center for volunteer activities, service-learning, and advocacy for social issues. Three major service projects are sponsored by CLS. By taking leadership roles in organizing and implementing these projects, students are able to practice and refine their leadership skills. Alternative Spring Break (ASB) educates students about social issues and encourages them to make a difference by participating in direct service projects in communities throughout the country and abroad. Dance Marathon is a student-run philanthropy dedicated to raising money for the Children's Miracle Network. Several hundred students participate in the 25-hour fundraiser that takes an entire year and a committee of 30 students to plan and implement. Proceeds benefit the Miami Children's Hospital. Relay for Life is the signature fundraising event for the American Cancer Society. A committee of FIU students organizes the 18-hour overnight walk to celebrate life and provide hope for those touched by this disease.

Students may also take on leadership roles by providing peer education. Peer Educators Advocating Cultural Enrichment (PEACE) is a student-led diversity education initiative. PEACE uses experiential learning activities and frank discussions to engage students in a dialogue about diversity. PEACE members present workshops in classes and for student organizations. The LEAD Team is a student group that promotes and supports leadership development. The LEAD Team participates as program promoters and department ambassadors, group facilitators, classroom presenters, and consultants to student organizations.

The Center for Leadership and Service is dedicated to developing the leadership capacity and service ethic of all students, regardless of position or title.
Location: GC 242 University Park, (305) 348-1402 or; WUC 256, Biscayne Bay Campus, (305) 919-5360
Web Site: **www.fiu.edu/~cls.**

MULTIFAITH COUNCIL

The Multifaith Council serves student groups involved in a variety of activities. Professional representatives from various faiths are available for personal appointments. Individual denominations sponsor campus-wide programs including worship, study groups, social gatherings, and cultural events. Campus Ministry sponsors programs and activities which are non-denominational.
Location: GC 318, University Park, (305) 348-3902; CM 101, Biscayne Bay Campus, (305) 919-5247.

CAREER SERVICES

Career Services (CS) assists registered students at all University locations with career plans and employment needs across academic disciplines, and with all types of employers; large and small, private and public, national and international. CS works closely with the Chapman Career Services Management Office. CS's high-tech and high-touch philosophy offers 24-7 services plus individualized attention through intake hours and one-on-one appointments.

CS encourages students to register with the office immediately after enrolling in classes---whether as a freshman, a transfer, or a graduate student. The office can help you identify a major, find an internship, or locate a career that is right for you. Get involved with Career Services. Our programs and services include:

- *CAREER DEVELOPMENT*-Offers career interest tools, group sessions, and appointments for those desiring to identify their next educational/career path.
- *INTERNSHIPS & COOPERATIVE EDUCATION*-Provide students with practical experience in their chosen major. Assignments include part-time as well as full-time work. Internships and Cooperative Education often provide a salary and academic credit with assignments possible at local, national or international levels. These experiences are an excellent way to secure full-time career employment upon graduation.
- *EMPLOYMENT UPON GRADUATION*-Offers on-campus interviews, resume referrals, on line job vacancies, networking opportunities, and career fairs (face-to-face and virtual).
- *DELTA EPSILON IOTA – An academic honor society dedicated to enhancing student leadership skills, career development, and networking opportunities with employers. The society supports the mission, vision, and goals of Career Services. Membership is open to undergraduate and graduate students across all academic units who meet the 3.3 GPA requirement and have earned at least 30 semester hours.*

CS also provides specialized workshops like business etiquette dinners, dress for success seminars and how to network and negotiate effectively. Other activities include resume critiques, mock interviews, and development of scannable resumes. The office has videoconference capabilities for interviewing. For more information, click on: **http://www.fiu.edu/~career.**
Locations: University Park, GC 230, (305) 348-2423; Biscayne Bay, WUC 225, (305) 919-5770; Engineering, EC 2780, (305) 348-1281, College of Business, CBA RB 340B, (305) 348-3074

DISABILITY RESOURCE CENTER

Disability Resource Center provides information and assistance to students with disabilities who are in need of special accommodations. Services are available to students with visual, hearing, speech, physical, and learning disabilities. Services include counseling, classroom accommodations, assistive technology, note-takers, readers, ASL interpreters, adapted testing, priority registration, and referrals. Support and assistance in overcoming architectural, academic, attitudinal, and other barriers encountered are provided. Requests for services must be made prior to the beginning of each semester and current documentation of disability is required to receive services.
Location: GC 190, University Park, (305) 348-3532, WUC 131, Biscayne Bay Campus, (305) 919-5345. TTY 348-3852.

UNIVERSITY HEALTH SERVICES

Your health is vital to your academic success. Therefore, University Health Services utilizes funds collected through the student health fee to provide all registered students with free or low cost clinical and non clinical services to help them live a healthier lifestyle. Two ambulatory care centers are available on each campus to serve student needs.

Services offered at no charge:

- Office visits with registered nurses, primary care nurse practitioners, and/or physicians
- Physical exams for preventive health
- Family planning counseling
- Lifestyle workshops, lectures, and activities for groups or individuals are provided on a variety of topics such as: wellness, stress management, nutrition, fitness, sexual health (HIV/AIDS, STD, etc.), substance use/abuse prevention, preventive health issues/self-care, and aromatherapy
- Fitness assessment (weight, body composition, blood pressure/heart rate, flexibility, cardiovascular fitness)
- Health Education consultations on nutrition, fitness, smoking cessation, wellness, stress management, aromatherapy, and sexual health)
- Anonymous HIV counseling and testing
- Yoga classes
- Chair massages
- Student clubs

Services available for a nominal charge:

- Nutrition counseling with a registered dietician
- Laboratory tests (blood, urine, and cultures)
- EKGs, vision, and hearing tests
- Physical examination and accompanying reports for class or work related puposes
- Testing and treatment for sexually transmitted infections
- Respiratory therapy

- Immunizations
- Women's clinical services: physical exams and diagnostic tests including pap smears, pregnacy tests, colposcopy*, cryotherapy*, and ultrasounds*
- Massage therapy*
- Acupuncture*
- Chiropractic*
- Pharmacy services which include over the counter products and prescription medications*

*Only available at University Park Campus.

Important information before accessing our services

- Students must present a current, valid FIU photo ID at the time of the office visit.
- For your convenience, appointments are strongly recommended.
- Payment is required at the time of service. Cash (at UP only), checks, money orders, MasterCard/VISA/Discover credit cards, and the FIU debit card are accepted as forms of payment.
- Services not available include: X-ray, dental care, specialty physicians, and emergency care after clinic hours and on weekends. In case of emergency on either campus, call Public Safety—Campus Police Department (24 hours a day) at 305-348-5911. Emergency care after clinic hours and on weekends is not offered at our facility.
- The student health fee does not cover diagnostic and therapeutic medical visits to outside physicians, clinics, or hospitals. Students are strongly encouraged to purchase supplemental health insurance. A health insurance policy is available at a low rate for students who take six or more credits a semester. See our website for further details about the current domestic insurance plan.
- For a complete and updated list of our services and charges, visit our website at **www.fiu.edu/~health.**

University Park
Location: University Health Services Complex, near the Law School and Recreation Center
Phone Number: (305) 348-2401
Fax: (305) 348-6655

Biscayne Bay Campus
Locations: Health Care Center (HCWC Building located by parking lot 1-C)
Wellness Center: (across from the Campus Support Complex)
Phone Numbers: (305) 919-5620
Fax: (305) 919-5312.

STUDENT MEDIA

Student media at FIU include **The Beacon** newspaper and WRGP radio.

The Beacon is an editorially independent publication produced by students and distributed free. The purpose of **The Beacon** is to keep the University community informed about campus news events and activities; to serve as a forum for opinion and commentary concerning campus related topics; and to protect the interests of the Unversity community and its component parts. It is published Monday and Thursday during the fall and spring terms, except during holiday breaks. It is also published eight times during the summer term. Students can work on the staff in news and features, photography, and/or advertising. No prior experience is required.

WRGP is FIU's radio station located at 88.1 and 95.3 FM. Its programming is an eclectic mix of the latest music on the cutting edge of the alternative scene, FIU sports play-by-play, and news. Programming also includes weekly specialty shows that cover the music spectrum of metal to reggae, and in between is Caribbean, hip-hop, rap, Latin rock, and jazz. The station operates from 7 a.m. to past midnight seven days a week. The station provides a means for students to acquire experience in various disciplines related to the broadcast industry, including hands-on experience in a realistic, business-like setting encompassing teamwork and professional standards. Students can work in areas such as broadcasting, business, promotions, and/or engineering. Prior experience is not required.
Location: **The Beacon**, GC 210 University Park (305) 348-2709; WUC 220, Biscayne Bay Campus (305) 919-4722. WRGP, GC 319, University Park, (305) 348-3071.

THE DEPARTMENT OF HOUSING AND RESIDENTIAL LIFE

The Department of Housing and Residential Life provides housing for students at both the University Park and Biscayne Bay Campuses. There are six residential complexes of which five are located at the University Park Campus and one on the Biscayne Bay Campus housing approximately 3,100 students on both campuses. Our student housing is designed to provide a comfortable living environment conducive to supporting students' academic success. The facilities are located within walking distance to classrooms, faculty offices, labs, recreation facilities, and other student services. There are multiple room types which provide a variety of accomodations to meet sudents' housing needs and budgets.

The campus residential community provides unique opportunities for personal growth and development, leadership experiences through student participation in programming and activities, and developing an appreciation of and sensitivity to differences. Residents have the opportunity to enjoy social and educational events that are sponsored by the Residence Hall Association and resident assistants. The residence halls feature several Living and Learning Communities that include: FYRST (First Year Residents Succeeding Together), FYRST Explore, Arts and Architecture, Honors Place, Honors Place 2, Honors Place on the Bay, Leaders in Residence, and a Law Community. Housing academic tutuors known as the A-Team are also available to assist students with their academic tutuoring needs.

All of the housing facilities have fast Ethernet connections. Unlimited access to the web, basic cable television, and utilities are included in the room rental rate. Each of the residence halls is staffed with both professional and paraprofessional personnel to ensure the facilities are safe and well maintained. For more information regarding services and accommodations, please visit our web page at **http://www.fiu.edu/~housing.**
Location: Housing Office, University Park Towers (UPT) 121, Phone: (305) 348-4190, Fax: (305) 348-4295; E-mail: **housing@fiu.edu.** Office of Residential Life, Panther Hall (PH) 126, Phone: (305) 348-3661, Fax: (305) 348-3674

On the Biscayne Bay Campus, the Bay Vista Housing Office is (305) 919-5587.

INTERNATIONAL STUDENT AND SCHOLAR SERVICES

The International Student and Scholar Services (ISSS) office provides assistance to international students, faculty and researchers in non-immigrant status (F or J visas). The staff provides advising services on immigration, cultural, personal, social and financial concerns, as well as, maintaining the Student Exchange Visitor Information System (SEVIS) of the Department of Homeland Security tracking system for the University. The department also serves as a liaison to academic and administrative departments throughout the University.

All new and/or international transfer students **MUST** attend a **MANDATORY** orientation program before the start of their first semester and **MUST** report to the ISSS office within the first week of the start of classes. The ISSS also offers social and cultural programs to assist students in adapting more effectively to the University community and to living in Miami. An active International Student Club on each campus collaborates with the department in organizing various social activities. Club programs enable students to participate in the international dimension of the University and provides opportunities for involvement in the greater Miami community.

ISSS is located in GC 355, University Park, (305) 348-2421; and WUC 363, Biscayne Bay Campus, (305) 919-5813.

MULTICULTURAL PROGRAMS AND SERVICES

The Office of Multicultural Programs and Services (MPAS) provides retention-centered services for our diverse student body. MPAS offers students the personal, academic, social, and cultural support needed for the achievement of educational goals. Staff assist with leadership development, counseling, career and academic advisement, financial assistance, tutorials, and serve as a liaison to academic units and student support services University-wide. AAA Tutorial and several student organizations fall under the MPAS umbrella.

Location: GC 216 and GC 265, University Park, (305) 348-2436; WUC 253, Bicayne Bay Campus, (305) 919-5817.

AAA Tutorials (Assistance for Academic Achievement) is a free tutoring service available for all enrolled FIU students.

Locations: GC 267, University Park, (305) 348-4109; WUC 253 (305) 919-5817.

Please visit our web page at http://www.fiu.edu/~mpas.

Student Organizations advised through MPAS include Alpha Kappa Alpha Sorority, Inc., Black Student Union, Multicultural Awareness Club, Native American Society.

Anyone interested in these organizations should contact the main office number.

OFFICE OF THE OMBUDSMAN

The Ombudsman Office acts as an impartial and confidential forum to assist students who have encountered problems or conflicts at the University, particularly problems or concerns not adequately addressed through normal channels. This may include correcting processes or procedures which hinder resolving the issue or are causing an inordinate delay. The Ombudsman may resolve problems through various methods, including investigation, mediation, or making referrals to the appropriate University department for review. The Ombudsman should be utilized in situations where all areas of appeal have been exhausted or proven unsuccessful.

For more information or services, please contact the Office of the Ombudsman at (305) 348-2797 located in Graham Center 219 at University Park Campus, or located in WUC 325, Wolfe Univerisity Center, Biscayne Bay Campus, (305) 919-5800.

ORIENTATION AND COMMUTER STUDENT SERVICES

The Office of Orientation and Commuter Student Services provides resources, services, and programs to new students and the University's commuter student population. The "Panther Preview" Orientation program is designed to assist new students with the transition to university life by introducing them to the vast array of resources available at FIU, providing time to work with an academic advisor, and giving them an opportunity to get to know their new classmates. New students meet with a Peer Advisor who introduces them to the campus surroundings and provides valuable insight into what it is like to be an FIU student. Students are also given the opportunity to receive their official FIU Student ID/ Panther Card, discover the variety of ways to get involved on campus, and learn how to use the online student registration system.

A mandatory two-day program for freshmen and a one day session for transfer students are held prior to the fall, spring, and summer semesters. A parent program is also offered during each freshman session to introduce parents to FIU and assist them with preparing to meet the challenges of parenting a college student. Information about registering for Orientation is mailed to newly admitted undergraduate students prior to the first term of enrollment.

The Commuter Center, located at University Park, assists students with obtaining information that will aid them in making a smooth transition to the University. A variety of services are available at the Center, including: off-campus housing information, campus maps, parking information, local telephone access, and child care information.

The department coordinates large-scale events such as Welcome Week, Panther Camp, Parent and Family Weekend, and provides direction for the Panther Parents Association.

Location: GC 112, University Park Campus, (305) 348-6414; WUC 141, Biscayne Bay Campus, (305) 919-5804.

OFFICE OF STUDENT CONDUCT AND CONFLICT RESOLUTION

The mission of Student Conduct and Conflict Resolution is to promote concepts of respect, civility, fairness, and conflict resolution on campus by enforcing community standards (FIU policies, federal, state, and local laws) and holding students accountable for their behavior in a fair,

yet developmental manner, through the involvement of the campus community and educational development of students.

Infringement of an academic nature should be directed to the Office of the Vice Provost of Academic Personnel. Complaints that are non-academic should be directed to the Office of Student Conduct and Conflict Resolution.

The Office of Student Conduct and Conflict Resolution also provides the following:

- Mediation as an avenue to foster mutual respect and understanding when differences arise. Mediation through the Office of Student Conduct and Conflict Resolution is an informal, voluntary, and confidential way to resolve minor conflicts, disputes, or disagreements without going through formal charges or judicial proceedings.
- Background checks for various agencies (Secret Service, FBI, CIA, State Department, DEA, Federal Marshals, Law Enforcement Agencies, Military, Graduate Schools, Law Schools, Dean Certifications, Florida Bar Examiners).
- Selection and training of judicial board members and hearing officers.
- Admissions clearances – The University reserves the right to review the case of any student who has been involved in misconduct prior to admission to determine eligibility for admission.
- Educational programs for faculty, staff, and students regarding the student judicial process; ethics and intergrity; and conflict recolution.

Please refer to the Student Code of Conduct section in the FIU **Student Handbook** for more information regarding Student Conduct and Conflict Resolution processes and procedures. The Office of Student Conduct and Conflict Resolution is located in GC 311 at the University Park Campus, (305) 348-3939.

Web site: **http://www.fiu.edu/~sccr.**

UNIVERSITY CENTERS

The University Center on each campus provides direct services to students and the University community. The Graham Center (GC) at University Park and the Wolfe University Center (WUC) at Biscayne Bay Campus are the focal points for the University community to meet and interact in a non-classroom environment. Staff in the Centers coordinate the scheduling of space and assist with the production of student and University sponsored events.

As the hub of University life, these buildings house the offices of Student Government Association (SGA); Student Programming Council; Student Organizations Council (SOC); The Beacon student newspaper; Faculty Club, and departments of the Division of Student Affairs that provide services to students: Career Services, Office of Disability Services for Students, International Student and Scholar Services, Leadership Development, Kaplan Centers, Office of Multicultural Programs and Services, Campus Life, Women's Center, Volunteer Action Center, and Judicial and Mediation Services.

The University Centers also offer the services of coordinating special events, media sources, state-of-the-art and wireless computer labs, bookstores, cafeterias, grills, vending machines, credit unions, copy centers, automatic banking facilities, auditoriums, lounges, meeting rooms, ballrooms, movie theaters, and game rooms. Other services include; Lost and Found, locker rentals, vending refunds, Kaplan test preparation classes, and Panther ID card center.

The Graham Center houses the Office of the Vice President for Student Affairs and Undergraduate Education, classrooms, Art Gallery, the Radio Station (WRGP), TicketMaster, a satellite cashiering office, a fresh food concept—serving all you care to eat, Pollo Tropical, Subway, Burger King, Sushi, Bene Pizzeria, Einstein Bros Bagels, and a coffee shop. The mini-mall offers a credit union, Panther Stop convenience store, copy center, bookstore, Santi's hair and nail, travel agency, notary public, and Panther Dry Cleaners.

The Wolfe University Center (WUC) is located at the heart of FIU's Biscayne Bay Campus. It Is home to the three hundred seat Mary Ann Wolfe Theather, houses a state-of-the-art computer lounge, five large meeting rooms, and a recently renovated multi-purpose ballroom. A multi-purpose dining and catering facility, the student fitness center, and several comfortable study lounges can also be found in the WUC. It is also host to one of the most complete and professional team building training programs in South Florida, the Team Ropes Adventure Challenge (TRAC). Tenants include Students Affairs Offices for Disability and Support Services, Multi-Cultural Programs and Services, Career Services, International Student Scholar Services, and Psychological and Counseling Services. University support offices include the Credit Union, the Student ID Center, Panther Print and Mail, University Technology Services, and the Parking and Transportation Office. The Barnes and Noble University Bookstore is located on the first floor next to Panther Square.

The administrative offices of the University Centers are located as follows: GC 1215 at University Park (305) 348-2297; WUC 325 at Biscayne Bay Campus (305) 919-5800.

VICTIM ADVOCACY CENTER

The Victim Advocacy Center provides support services to FIU students, faculty, staff and university visitors who have been victims and survivors of abuse and/or violence. Confidential services are free of charge, and address issues such as sexual violence, relationship/ dating/domestic abuse, stalking, assault and battery, hate crimes, harassment, and issues pertaining to adult survivors of child abuse, and homicide survivors. The Center also provides awareness and prevention education programs for the FIU community, and peer education opportunities for FIU students. In addition, the Center engages in research regarding effective interventions and is funded to make national policy recommendations. A resource library is also available for student use at the Univiersity Park Campus. Persons who have experienced actual or threatened victimization are encouraged to seek services from the Victim Advocacy Center.

Location: UHSC 210, Unviersity Park Campus (305) 348-1215; by appointment at BBC; 24-hour cirsis hotline: (305) 348-3000.

WOMEN'S CENTER

The Women's Center at FIU provides various programs and services related to the intellectual, professional, and personal growth of women. The Mentoring Partnerships Program, a joint effort with the Office of Alumni Relations,

matches current FIU female students with a faculty, staff, or alumnae mentor who can assist them in developing their personal and professional goals, in navigating the university, and assist them in developing networks. Other programs and services include involvement with NOW (National Organization for Women), Take Our Daughters to Work Day, and Women Herstory Month, The Women's Center collaborates and coordinates with other university departments and student organizations to meet the needs and enhance the lives of the varied female population on campus. Programs and services are open to the entire community, but focus on women and include confidential referrals, scholarship information, and volunteer opportunities. We educate and advocate for systematic changes that will improve the lives of women and men.
Locations: GC 2200, University Park, (305) 348-3692 and WUC 257, Biscayne Bay Campus, (305) 919-5359.

PRE-COLLEGIATE PROGRAMS AND GRANTS

The Office of Pre-Collegiate Programs and Grants prepares, submits, and monitors external grant applications for the Division of Student Affairs. The office also researches and investigates potential grant opportunities, provides direction in the monitoring and evaluation of externally funded programs initiated by staff members, and serves as liaison with the University's Sponsored Research Office.

This Office develops partnerships with community and local educational agencies and acts as liaison with private and public agencies and organizations. Training is provided for Division staff regarding development and management of external funding opportunities. Policies regarding grants and grant writing are formulated and implemented. Pre-Collegiate Programs and Grants also directs grant budgets and oversees budgeting of obtained grants.
Location: MARC 414, University Park, (305) 348-2446.

PRE-COLLEGIATE PROGRAMS

Pre-Collegiate Programs provide academic enrichment, career planning, financial aid guidance, and scholarship opportunities to promising underrepresented students at the middle and high school levels. The progams also expose students to the University environment through residential and non-residential programs and assists in facilitating the transition to college. In partnership with Miami-Dade County Public Schools, the programs are offered on both campuses and they are College Reach Out, College Board Math and Science; Partners in Progress I and II; and South Florida Center of Excellence.
Location: GC 331, University Park, (305) 348-1742.

UPWARD BOUND

The Upward Bound pre-collegiate program is a federally funded project designed to prepare underserved high school students for college. Upward Bound provides participants with supplemental instruction in academic areas, counseling, life skills training, financial aid, and a summer residential experience.
Location: GC 331, University Park, (305) 348-1742.

Educational Talent Search
Educational Talent Search is a federal initiative to serve disadvantaged middle and high school students who need support to complete high school and to gain entry into a post secondary institution. The program provides services and activities that address the personal, academic, career, and cultural needs of each participant.
Location: WUC, 257, Biscayne Bay Campus, (305) 919-4223.

Ronald E. McNair Post Baccalaureate Achievement Program
The McNair Program is a federally funded project to help talented first generation college students and other underrepresented groups to make the transition to graduate school. The program is designed to encourage undergraduates to prepare for doctoral studies. Students who participate in this program are provided with research opportunities and are assigned faculty mentors.
Location: VH 214, University Park, (305) 348-7151.

COUNSELING AND PSYCHOLOGICAL SERVICES

The Counseling and Psychological Services Centers offer an array of mental health services which enhance the emotional and cognitive well-being of students. There are centers located on the University Park Campus and the Biscayne Bay Campus. The following clinical services are available to all registered students: individual, couple, and group counseling; substance abuse and eating disorder screenings; psychological and neuropsychological testing; crisis intervention; and psychiatric services. In general, all services are confidential.

Programs available to the University community include psychoeducational workshops and seminars related to stress and time management, anger management, and other mental health issues. The Counseling Center also offers the PASS program each semester, which is a fully online workshop designed to improve students' academic and personal functioning.

Consultation services are available to faculty or staff regarding student concerns.
Location: UHSC 270, University Park, (305) 348-2434; WUC 320, Biscayne Bay Campus, (305) 919-5305. **http://www.fiu.edu~psych.ser.**

CAMPUS RECREATION SERVICES

Recreational sports programs and fitness facilities are available for Florida International University students, faculty, staff and alumni through the Offices of Recreation Services (UP) and Campus Recreation (BBC). Funding for these services is primarily through student fees allocated by the FIU Student Government Association (SGA).

A variety of Intramural (IM) Sports are offered on each campus, including men's, women's and co-rec leagues in sports such as flag football, basketball, volleyball, softball and soccer, and tournaments for sports like racquetball, tennis, and golf. Individuals looking for a team are encouraged to register as "free agents". Registration for Intramural Sports can be initiated via the web on the Campus Recreation Services website (see URL below).
The UP Recreation Center (RC) is equipped with state-of-the-art exercise and cardiovascular fitness equipment. In addition to free weights, the center provides resistance and selectorized equipment, steppers, upright and

recumbent bicycles, treadmills, rowers, and ellipticals. A Basketball gym, locker rooms and a Pro Shop are also available. The Rec Center is located west of the Health Services Complex.

The BBC Fitness Center is located on the third floor of the Wolfe University Center (WUC), with an expanded facility under construction. A variety of strength and cardio equipment is provided.

Low or no-cost Group Fitness classes, including pilates, kickboxing and step aerobics, are offered throughout the year on both campuses, as are specialty classes such as yoga, spinning, and bodypump. Fitness orientations, body composition evaluations, and personal training are also featured. Credit and non-credit classes are available.

The two campuses offer other facilities for recreational use. At University Park, Pharmed Arena houses three indoor racquetball courts available on a reservation basis. The Tennis Centers on each campus offer lighted courts, and tennis lessons are available. The BBC Aquatic Center and Panther Hall Pool provide on-campus swimming opportunities. At UP, students have free access to nearby Tamiami Pool during lap swim hours. A current, activated Golden Panther photo ID is required for access to all recreation facilities and programs.

Other areas of interest include adventure recreation programs, club sports, special events and swim/sport camps.

Both recreation offices provide student employment opportunities as sports officials, fitness attendants and supervisors, lifeguards, group fitness instructors, office assistants and more.

For additional information, call:
UP Recreation Services: (305) 348-2951
BBC Campus Recreation: (305) 919-4571
UP Recreation Center: 348-2575
BBC Fitness Center: 919-5678
UP Panther Hall Pool: 348-1895
BBC Aquatic Center: 919-4595
IM Sports: 348-1054 (UP), 919-5678 (BBC)
Tennis Center: 348-6327 (UP), 919-4571 (BBC)
UP Racquetball Reservations: 348-2990
Web Site: **http://www.fiu.edu/~camprec/**

Intercollegiate Athletics

FIU is a member of the National Collegiate Athletic Association (NCAA), and the Sun Belt Conference for men and women. The men's soccer program is a member of Conference USA. The University has competed at the NCAA Division I level since September of 1987 and is currently at the Division I-A level, the highest classification offered by the NCAA. FIU competed successfully at the Division II level since 1972. Programs and services in Intercollegiate Athletics provide an opportunity for student-athletes to develop as skilled performers in an educational setting. Much emphasis is placed on the student as a student-athlete to ensure intellectual, emotional and social well being.

ATHLETICS

Athletic team membership is open to all full-time students, who meet NCAA eligibility requirements and are enrolled for 12 credits. Women's programs consist of basketball, volleyball, soccer, golf, tennis, track, softball, cross-country and swimming. Men's programs consist of basketball, football, soccer, baseball, track and cross-country. To be eligible for intercollegiate competition, the University and NCAA require each student-athlete to be in good academic standing and make satisfactory progress toward a degree. Team membership is determined in a manner which does not discriminate based on race, sex, national origin, marital status, age or disability.

Financial assistance is available to all students recruited for all 17 athletic teams. Assistance may include grants, scholarships, loans or self-help programs. To be eligible for financial assistance, each student-athlete must be in good academic standing and make satisfactory progress toward a degree.

ATHLETIC FACILITIES

The athletic department utilizes seven facilities that serve as the sites for athletic, educational and recreational activities.

The Pharmed Arena is a multi-purpose facility. There is a seating capacity for special events of 5,150. The main floor can hold four volleyball courts and two basketball courts. The two auxiliary gyms can each hold one full basketball court or a volleyball court. Also housed in the arena are three racquetball courts, five classrooms and six locker rooms.

The FIU Soccer and FIU Softball stadiums are the home of our intercollegiate men's and women's programs. Both stadiums are lighted. The soccer stadium seats 1,500 and the softball stadium seats 300.

The FIU Tennis Center has twelve lighted courts and is home to the Women's tennis program. Six courts are open for daily recreational play.

The FIU Community Stadium is a Football and Track facility. The stadium is the home of our intercollegiate football program, and is also the home of our men's and women's track and field programs. In the fall, the facility is used to host many Miami-Dade County Schools high school football games.

The University Park Baseball Stadium is the home to our intercollegiate baseball team. The stadium has a seating capacity of 1,600.

FIU students are admitted to all regular season intercollegiate athletic home events free of charge. Presentation of a valid University identification card is required.

For additional information please call: FIU Athletic Facilities 348-3258; visit the website at fiusports.com or call the Pharmed Box Office at 348-4263 **(FIU-GAME)**.

Continuing and Professional Studies

To the South Florida community, FIU Continuing and Professional Studies (CAPS) is the education and training partner that provides excellence and value through its professional and academic programs. Through CAPS, the instructional and academic resources of the University are extended by using innovative approaches including distance learning, alternative scheduling, and community-based academic credit and non-credit programs. State-of-the-art technological capabilities offer a high-quality learning environment at the Kovens Conference Center or at a customer's location. A professional team is dedicated to the highest standards of customer satisfaction. Local, state, national, and international communities are served with consistent, cost-effective, high quality and distinctive programs and services.

CAPS carries out its mission to extend lifelong learning opportunities to adult and non-traditional students by providing increased access to University programs. Courses of instruction are developed and offered in a variety of formats.

ACADEMIC CREDIT PROGRAMS

Degree and certificate programs, as well as courses for academic credit, are offered at flexible/compressed times and locations to facilitate the scheduling needs of students and to help enhance their learning opportunities. Courses and programs for academic credit may be delivered off-campus. Weekend and evening degree programs for working professionals are offered in collaboration with the University's colleges and schools.

A public agency or professional organization may wish to contract with the University to provide credit courses and degree programs at the work site in order to meet employee training needs.

For more information on Academic Credit Programs call (305) 919-5669.

NON-CREDIT PROGRAMS

Continuing and Professional Studies provides lifelong learning opportunities for non-traditional students in both the professional development and personal enrichment arenas.

PROFESSIONAL DEVELOPMENT

Professional Development provides organizations with the opportunity to maximize personnel potential through on-site customized training. Courses are offered via contract training, open enrollment and online. Offerings extend from communication and leadership skills to teambuilding, business development, critical thinking and customer service. For more information call (305) 348-5669.

OSHER LIFELONG LEARNING INSTITUTE

The Osher Lifelong Learning Institute offers personal enrichment courses for adult learners age 50-plus in areas such as the arts, literature, film, current events, international relations, languages, computers, and personal growth. Cultural events and tours are also offered. Lifelong learners are taught by experts in their fields and by FIU faculty. All classes are held at the Kovens Conference Center on the Biscayne Bay Campus. For more information call (305) 919-5910.

LEGAL STUDIES INSTITUTE

The following Legal Studies programs, taught by area attorneys and judges, are offered: Paralegal (online and on-site at University Park, Biscayne Bay Campus, and the Broward Pines Center), Legal Secretary, Law Office Management, Immigration and Nationality Law, Medical/Legal Consultant, Investigation Techniques, Pre-Licensing Risk Management for Health Care Providers, and other courses for attorneys and paralegals, as well as Continuing Legal Education opportunities for members of the Bench and Bar. The Institute is a federally approved paralegal training provider for US veterans. For more information call (305) 348-2491.

MULTICULTURAL TRAINING INSTITUTE

Programs, workshops, and seminars covering various disciplines and taught in different languages (Spanish, French, and Portuguese, for example) are also available. Some of these non-credit offerings include Executive Management Certificate, Web Planning & Design, Comparative Law, and Customer Service Skills Training. Multicultural Training Institute programs are designed to meet the growing needs of the global marketplace. For more information call (305) 348-2492.

KOVENS CONFERENCE CENTER

The award-winning Roz and Cal Kovens Conference Center at Florida International University supports the teaching, research, and public service mission of the University by providing exceptional conference and meeting facilities to its clients. The Conference Center provides high-end meeting technology, special events planning, exceptional catering and outstanding customer service at a reasonable price. As a member of the International Association of Conference Centers, the Center adheres to the highest standards of meeting excellence and provides meeting and computing facilities that are fully equipped with high-speed Internet access, high-end telecommunications resources, videoconferencing and audiovisual services. The Kovens Conference Center's experienced team of professionals is ready to assist in transforming program ideas into successful conferences, workshops, seminars, institutes, team-building retreats, meetings and other related professional and educational activities. For more information, call the Kovens Conference Center at (305)-919-5000 or 866-4-KOVENS, or visit online at www.kovens.fiu.edu.

Website **http://www.caps.fiu.edu** contains information on all of the aforementioned programs.

ROZ AND CAL KOVENS CONFERENCE CENTER

Undergraduate Admissions

Florida International University encourages and accepts applications from qualified applicants without regard to gender, physical handicap, cultural, racial, religious, or ethnic background or association.

APPLICATION PROCESS

Students interested in applying can do so via the following methods:

Application Online

Students with internet access can apply online by visiting FIU's website at **http://www.fiu.edu/~admiss/** for application and instructions. A valid credit card is required for submitting online applications. A $30.00 non-refundable fee (U.S. dollars) will be charged for each online application.

Paper Application

FIU uses a common institutional application form for all undergraduate programs. This application can be downloaded from **http://www.fiu.edu/~admiss/**. A $30.00 non-refundable application fee (U.S. dollars) made payable to Florida International University must accompany applications submitted.

All credentials and documents submitted to the Office of Undergraduate Admissions become the property of Florida International University. Originals will not be returned to the applicant or forwarded to another institution.

FRESHMAN APPLICANTS

In addition to the application, the following credentials are required:

1. Official secondary school transcripts and appropriate test scores: Scholastic Aptitude Test (SAT) or the American College Test (ACT).

All official transcripts, test scores, and any other required credentials must be received directly from the issuing agencies, and forwarded to P.O. Box 659003, Miami, FL. 33265-9003. It is the applicant's responsibility to initiate the request for credentials to the issuing agencies and to assure their receipt by the Office of Admissions.

2. Proof of graduation from an accredited secondary school must be submitted.

3. Eighteen academic units in college preparatory courses are required as follows:

English	4
Mathematics	3
Natural Science	3
Social Science	3
Foreign Language[1]	2
Academic Electives[2]	3

[1]Two units in the same foreign language are required.

[2]Academic Electives are from the fields of mathematics, English, natural science, social science, and a foreign language. The academic grade point average will be computed only on the units listed above. Grades in honors courses, International Baccalaureate (IB), and advanced placement (AP) courses will be given additional weight.

Freshman admission decisions are made based on the student's strong academic preparation. Competition for placement in the freshman class is the result of the quality and extent of the applicant pool.

Applicants who do not meet the above criteria will be reviewed by the Admissions Review Committee. Those who show potential in areas not easily evaluated by standardized tests can be considered for admission under the Profile Assessment Rule.

Students who apply to majors in Theatre, Music, and Dance must meet University academic standards and receive the approval of the respective department through an audition. Students should contact the specific department for audition dates.

TRANSFER APPLICANTS

Degree Degree seeking applicants with fewer than 60 semester hours of transfer credits must meet the same requirements as beginning freshmen. In addition, they must demonstrate satisfactory performance in their college work.

Applicants who receive an Associate in Arts (A.A.) degree from a Florida Public Community College or State University in Florida will be considered for admission without restriction except for published limited access programs within the University.

All other applicants from Florida Public Community Colleges or State Universities in Florida who do not hold an Associate in Arts degree (A.A.) must have completed 60 semester hours of transferable credit, have a minimum grade point average of 2.0, and must present College Level Academic Skills Test (CLAST) scores before admission can be granted.

Students transferring from independent Florida and out-of-state colleges into the University's upper division must have maintained a minimum 2.0 grade point average based upon a 4.0 scale.

Coursework transferred or accepted for credit toward an undergraduate degree must be completed at an institution accredited as degree-granting by a regional accrediting body for higher education at the time the coursework was completed. Each academic department will review transfer credits to determine if they meet program requirements and reserves the right to accept or reject those credits. Students must contact their academic department to obtain any additional requirements needed for their program of study.

All applicants must meet the criteria published for limited access programs and should consult the specific college and major for requirements.

Applicants who meet the above admissions requirements, but have not completed the University's core curriculum requirements, or the prerequisites of their proposed major, may complete this college work at FIU, or at any other accredited institution. Students may also fulfill general education requirements through the College Level Examination Program (CLEP).

Official transcripts from all previous post secondary institutions must be forwarded to the Office of Admissions. Students are responsible for initiating this request.

Transfer applicants from a Florida Community College are encouraged to review the current edition of FIU's

transfer student counseling manual available in all of Florida's community colleges counseling offices.

All students seeking admission to the University regardless of whether the student holds an A.A., must have completed two years of credit in one foreign language at the high school level or 8-10 credits in one foreign language at the college level (American Sign Language is acceptable). If a student is admitted to the University without this requirement, the credits must be completed prior to graduation.

Students who can demonstrate continuous enrollment in a degree program at a SUS institution or Florida Community College since Fall Term 1989 (continuous enrollment is defined by the state to be the completion of at least one course per academic year) can be exempt from this requirement. Students holding an A.A. degree from a Florida Community College or SUS institution prior to Fall Term 1989 will also be exempt.

Students who are applying to majors in Theatre, Music, and Dance, in addition to meeting university academic standards, must meet the approval of the respective department through an audition. Students should contact the department for audition dates.

Admission decisions will not be made before the application is completed and all supporting documents are on file in the Office of Admissions. Applications are kept on file for one year from the anticipated entrance date.

Admission to the University is a selective process and satisfying the general requirements does not guarantee acceptance.

LIMITED ACCESS PROGRAMS

A limited access program utilizes selective admission to limit program enrollment. Limited access status is justified where student demand exceeds available resources such as faculty, instructional facilities, equipment, or specific accrediting requirements. Criteria for selective admission include indicators of ability, performance, creativity, or talent to complete required work within the program. Florida community college transfer students with Associate in Arts degrees are given equal consideration with FIU students. Admission to such programs is governed by the Articulation Agreement and the Florida Board of Education rules.

The following FIU programs have been designated as limited access:

Architecture
Business
Education
Interior Design
Journalism
Landscape Architecture
Nursing
Occupational Therapy
Social Work

INTERNATIONAL APPLICANTS

International student applicants must meet the admission requirements of the University as described in the previous sections and comply with the following:

Academic Records

Official transcripts, diplomas, and/or certificates must be sent directly from each previous institution to the Office of Admissions. Documents in a language other than English must be translated by an official translation agency. Notarized translations are not acceptable.

All undergraduate applicants with international educational credentials must provide a transcript evaluation from one of the National Association of Credential Evaluation Services (NACES): http://www.naces.org/members.htm.

Official evaluations must be forwarded directly to FIU from the evaluation service.

Josef Silny and Associates, Inc.
7101 S.W. 102 Avenue
Miami, FL 33173
(305) 273-1616
www.ece.org

High school diplomas require a document by document evaluation with U.S. equivalent Grade Point Average (GPA). College transcripts require a course by course evaluation with a calculated U.S. equivalent grade point average.

Proficiency in English

Applicants whose native language is not English and who have not taken any college level English courses, must present a minimum score of 500 paper-based and a minimum score of 173 computer-based or a 63 internet based (iBT) minimum score on the Test of English as a Foreign Language (TOEFL), or a minimum of 3 on the Advanced Placement International English Language Examination (APIEL).

Declaration and Certification of Finances

Upon receipt of the application for admission, the Declaration and Certification of Finances will be mailed to the applicant. It must be completed and returned to the Office of Admissions. A Certificate of Eligibility (Form I-20A) will be issued once the applicant has been found admissible to the University.

The University is required by immigration authorities to carefully check the financial resources of each applicant prior to issuing the Form I-20A. Therefore, it is important that applicants are aware of the cost of attending the University and have the necessary financial support for the period of enrollment. Applicants should refer to the Annual Estimate of Cost Chart in this catalog.

The total funds available for the student for the first or second academic year, or both, must equal the total estimate of institutional costs and living expenses. All items in the Declaration and Certification of Finances must be accurately answered to avoid unnecessary delay in processing. This document along with proof of sufficient funds must be received by the Office of Admissions two months prior to the anticipated entry date.

Refer to the Annual Estimate of Cost table for more information. A married student should plan on an additional $6,000 in costs to cover the living expenses of a spouse.

A couple with children should anticipate further yearly additional costs of no less than $4,000 for each child.

Medical Insurance

The State of Florida requires that all international students maintain health insurance coverage to help defray the costs in case of catastrophic medical emergency. The policy must provide specific levels of coverage which have been established to ensure that the policy is adequate to provide for costs at U.S. hospitals, usually much higher

than costs in many other parts of the world. In addition, a policy must have a claims agent in the United States who may be contacted by medical providers and who facilitates prompt payment of claims. The University has approved a plan which meets the state requirements and which meets the needs of most students; however, a student on F status may select alternate coverage provided it meets the state requirements for minimal coverage. A copy of these requirements is available from International Student and Scholar Services. Students are advised not to purchase insurance policies prior to arrival without verifying that the policies meet FIU/SUS requirements. Students in J status are required by the United States Information Agency to maintain health insurance coverage for themselves and their dependents for the full length of their program. Florida International University requires students on J status sponsored by FIU to purchase the University approved medical insurance plan for themselves and their dependents. Compliance with the insurance regulation is required prior to registration.

Priority Consideration

Due to the additional processing time required for international students, application and supporting documents should be submitted as early as possible. We recommend the following time frames - February 1st if you are applying for the summer semester, April 1st if you are applying for the fall semester, and September 1st if you are applying for the spring semester.

If the application and supporting documents are not received within appropriate time, the application for admissions will be considered for the following term.

Tuition

An international student is considered a non-resident and is assessed non-resident fees. Immigration regulations require an international student to attend school each fall and spring semester. An undergraduate student is required to take a minimum of twelve credit hours per semester. Please refer to the section on Student Fees and Student Accounts for more information.

SCHOLARSHIPS

FIU recognizes students who are academically, artistically, and athletically talented and encourages them to apply. The University awards several full and partial scholarships.

See Website for detailed scholarship information.
http://admissions.fiu.edu/scholarships.htm

University Undergraduate Rules and Regulations

CLASSIFICATION OF STUDENTS

The University classifies students as follows:

Degree-Seeking Students

This category includes students who have been admitted to a degree program, but have not completed the requirements for the degree.

Freshmen - Students who have earned fewer than 30 semester hours.

Sophomores - Students who have earned at least 30 semester hours but fewer than 60 semester hours.

Juniors - Students who have earned at least 60 semester hours but fewer than 90 semester hours.

Seniors - Students who have earned 90 or more semester hours but who have not earned a baccalaureate degree.

Non-Degree Seeking Students

Non-Degree students may be either affiliated with a College or School or unaffiliated in their status. Unaffiliated students are limited to taking one semester of courses at the University. Affiliated students must be approved by the appropriate College or School and must meet its specific requirements. Under no circumstances may more than 15 hours, taken as a non-degree seeking student, be applied to a degree program, if the student changes from non-degree seeking to degree-seeking status.

The following regulations apply to non-degree seeking students:

1. Students are not required to meet the usual admission requirements and are not officially admitted as regular students. Enrollment as a non-degree seeking student does not imply a right for future admission as a regular, degree-seeking student. Credit earned will not be counted toward a degree at the University unless such students subsequently apply for regular admission and are accepted as undergraduate or graduate students.
2. Registration is permitted on a space-available basis and is determined at the time of registration. Non-degree seeking students may not register during the official registration period for degree-seeking students.
3. No more than 15 undergraduate level semester hours earned as a non-degree seeking student may be counted toward a degree. The appropriate dean must approve the acceptance of such credit.
4. Non-degree seeking students will not be allowed to register for more than one term without obtaining admission to a degree program at the University, or obtaining admission into a formal certificate program, or acquiring affiliated status from the department in which they are registering.
5. Applicants denied admission to the University will not be allowed to register as non-degree seeking students for a period of one year without obtaining admission into a formal Certificate Program or obtaining affiliated status from the appropriate academic department.
6. Immigration regulations prevent most foreign nationals from enrolling without being admitted into a formal degree or certificate program, depending on the type of visa that they have. International students should contact the Office of International Student and Scholar Services for further information URL:**http://www.fiu.edu/~iss**.

Affiliated Students

Students applying for affiliated status as non-degree seeking students must be approved by the appropriate dean in accordance with criteria approved by that College or School's Faculty Curriculum Committee.

Transient Students

This category includes students who are fully admitted and are actively pursuing a degree at another accredited two or four year institution and wish to take courses at FIU for a semester. Such students need to present evidence of their status from their home institution each semester before they will be allowed to register.

Certificate Students

This category includes students who have been accepted into a specific certificate program by the academic department responsible for that program. Certificate programs are subject to all University regulations.

COLLEGE/MAJOR CLASSIFICATION

Lower division students have a college designation of lower division with a major designation of their intended major (if indicated by the student). This designation does not imply subsequent admission to that degree program.

Degree-seeking upper division students admitted to an upper level degree program are classified according to the college or school and major of their degree program; and when applicable, to the college or school and major of their second major.

When admitted students reach a total of 60 or more credit hours (including transfer and current enrollment), they may apply for admission into an upper division major, provided they have passed the CLAST or met the necessary requirements for CLAST exemption. All degree-seeking undergraduates must be admitted into an upper division major prior to completing 75 credit hours, including transfer hours.

ACADEMIC DEGREE REQUIREMENTS

Bachelor's Degree

The University will confer the bachelor's degree when the following conditions have been met:

1. Recommended by the faculty of the College or the School awarding the degree.
2. Certified by the dean of the College or the School that all requirements of the degree being sought have been completed.
3. Completion of a minimum of 120 semester hours in acceptable coursework.
4. Completion of the last 30 credit hours at the University. Exceptions (normally not to exceed six hours) may be made in advance by the appropriate dean.
5. Completion of the University Core Curriculum.

6. Earned a cumulative GPA of 2.0 or higher at the University.

7. Earned the grade requirements for major, University Core Curriculum Courses, and course sequences established by the appropriate College or School.

8. Satisfactory completion of the College Level Academic Skills Test (CLAST) requirement.

9. Completion of 8-10 sequential credits in one foreign language (American Sign Language is acceptable). Students who entered the University with a foreign language requirement deficiency, regardless of whether the student holds an A.A., must complete 8-10 sequential credits in one foreign language. Transfer credit acceptable to the requirement and exemption by CLEP examination is available. Students who have successfully completed two years of high school foreign language study in one language are considered to have met the requirement.

Students who can demonstrate continuous enrollment in a degree program at an SUS institution or Florida Community College since Fall Term 1989 (continuous enrollment is defined by the state to be the completion of at least one course per year) will be exempt from this requirement. Also exempt are students holding an A.A. degree from a Florida Community College or SUS institution prior to Fall Term 1989.

Two Bachelor's Degrees

Two bachelor's degrees may be awarded simultaneously when the following conditions have been met:

1. Requirements for two majors have been completed as certified by the appropriate academic units.

2. A minimum of 30 appropriate semester hours in addition to the requirements of one degree has been earned.

A graduate from an accredited four-year institution who applies for admission to work toward a second bachelor's degree must meet the requirements of the major department which shall include (but is not limited to) a minimum of 30 semester hours of coursework.

Two Majors for a Bachelor's Degree

Any undergraduate student who elects to do so may carry two majors and work to fulfill the requirements of both concurrently. Upon successful completion of the requirements of two majors, the student will be awarded one degree and a notation denoting both majors will be entered on the transcript. A request for a Second Major form must be filled out and turned into the appropriate academic unit for approval. The form may be downloaded at http://www.fiu.edu/orgs/register/forms.htm.

Minors and Certificate Programs

Students who have completed an approved minor as part of their baccalaureate degree program will have this notation as a part of the degree comment on their transcript.

Students who have completed an approved certificate program will have an appropriate notation placed on their transcript.

Associate in Arts

Students who satisfactorily complete 60 semester hours of acceptable college work with an overall GPA of 2.0 or higher, fulfill the Lower Division University Core Curriculum requirements, pass the College Level Academic Skills Test (CLAST) and complete at least 20 credit hours in residence at the University may apply for the Associate in Arts degree. Students who transfer in 36 or more credits are not eligible to apply. The Associate of Arts degree will not be awarded on completion of the baccalaureate degree. A notation will appear on the student's transcript but no diploma will be issued.

SUMMER ENROLLMENT REQUIREMENT

All students entering FIU or any university within the State University System (SUS) of Florida with fewer than 60 credit hours are required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a university in the SUS.

ACADEMIC DEFINITIONS

Program and Course Regulations

Credit Hour

The term credit hour as used refers to one hour of classwork, or the equivalent, each week for an entire academic term.

Major

An integral part of the bachelor's degree is a major concentration of coursework in an approved academic discipline or area. The exact course and credit requirements and prerequisites for each major are outlined in the departmental program areas in the catalog.

Electives

Students may select courses from any academic area to complement their area or areas of study or to meet their interests in order to fulfill the credit hour requirements for the bachelor's degree. Prerequisite course requirements should be considered in selecting elective courses. Students should refer to their academic program requirements concerning electives.

Minor Program

A minor program is an arrangement of courses that enables students to develop some degree of expertise in one area of study. A minor is awarded upon completion of the bachelor's degree, but is not interdisciplinary in nature.

Certificate Program

A certificate program is a combination of courses with a common base or interest selected from one or more academic disciplines and so arranged as to form an area of academic concentration. Three types of certificates are awarded: academic, professional, and continuing studies. Students must apply and be admitted into the professional certificate program.

Change of College/School or Major

A fully admitted undergraduate student may change majors, provided he or she meets the entrance requirements of the new program, by submitting a Request for Change of College/School or Major form. The form and instructions are available on line at http://www.fiu.edu/orgs/register/forms.htm.

The student is subject to the program requirements in effect at the time of the change of major.

REGISTRATION

The following registration information is subject to change and students must verify the dates with the Office of the Registrar, PC 130, University Park; or ACI-100, Biscayne Bay Campus; or at the Pines Educational Center, (954) 438-8600 or visit the Registar's website for up to date information http://www.fiu.edu/orgs/register/

All students, degree and non-degree seeking, registering for more than 18 credit hours during one semester must obtain the approval and the signature of the dean of their College or School. Registration for courses is as follows:

Official Registration is held during the preceding semester (check the Academic Calendar for the dates). Degree-seeking students are given an appointment day and time based on their classification, GPA, and credit hours completed. Students may also add/drop at this time.

Open Registration is held following Official Registration. There is no appointment day and time and registration is on a first-come, first-served basis. All students who have not yet registered are encouraged to do so at this time. Students who have already registered may also add or drop courses during this period.

Web/Kiosk Registration

All students are able to retrieve their grades, registration appointment time and day; classroom assignments; registration holds (if any) and to register/drop/add courses using the World Wide Web (**http://sis.fiu.edu**), or the on-campus kiosks. Students must use their PantherSoft ID and password in order to utilize the system.

IMMUNIZATION

To register for courses, students, born after December 31, 1956, must provide documentation of immunization against measles and rubella. Documentation may be submitted directly to the University Health Care and Wellness Center, University Park; or HM 110, Biscayne Bay Campus. Students should contact the Health Care and Wellness Center for more information at (305) 348-2401 or at (305) 919-5620.

LATE REGISTRATION FEE

Any student, degree-seeking or non-degree seeking, who initiates registration after the registration deadline is assessed a $100.00 late registration fee. Students may initiate late registration during the first week of classes.

DROPPING AND ADDING COURSES

The Official Drop/Add period runs throughout the first week of classes (check the Academic Calendar for specific dates). During this period a student may drop or add courses without financial penalty or initiate registration with financial penalty (the late registration fee). Students may also drop courses or withdraw from the University with no record of enrollment and without a tuition fee liability. Students may use the World Wide Web (**http://sis.fiu.edu**), or the on-campus kiosks to officially drop a course. If the tuition fee has already been paid, a refund will be generated by the Student Financials Office and mailed to the local address on file.

LATE ADDS

Students may add courses with appropriate authorization and signatures until the end of the third week of classes. No course can be added after this deadline.

LATE DROPS

Courses officially dropped after the Drop/Add period and through the eighth week of the term, (summer terms have different deadlines - check the Academic Calendar for specific dates), are recorded on the student's transcript with a grade of 'DR' (dropped). The student is financially liable for all dropped courses. Students must drop courses using the World Wide Web (**http://sis.fiu.edu**) or the on-campus kiosks. *Non-attendance or non-payment will not constitute a drop.*

A student may appeal the deadline for a late drop by submitting the Appeal to Drop/Withdraw Without Refund form. A drop after the deadline will be approved only in the following exceptional circumstances:

- Death of a student or immediate family member (parent, spouse, child, sibling). Death certificate required.
- Involuntary call to military service. Copy of orders required.
- Illness of student of such severity or duration to preclude completion of courses. Confirmation by a physician required.

The deadline to submit appeals is one year after the end of the term in which the course was taken.

The student must provide appropriate documentation. Upon approval of the appeal, the course instructor will designate whether the student was passing or failing the course at the time of the appeal to drop form was submitted. A 'DP' grade indicates the student dropped the class with a passing grade. A 'DF' grade indicates the student dropped the class with a failing grade. The 'DF' grade is calculated in the student's term and cumulative GPA. The deadline to submit appeals is one year after the end of the term in which the course was taken.

WITHDRAWAL FROM THE UNIVERSITY

A currently registered student can withdraw from the University only during the first eight weeks of the semester. In the Summer semester, withdrawal deadlines will be adjusted accordingly. A Withdrawal Form must be completed and submitted to the Office of the Registrar. *Non-attendance or non-payment will not constitute a withdrawal.* (Refer to the Academic Calendar for the deadline dates.)

The transcript of a student who drops all classes before or during the first week of classes will contain no record of enrollment and no tuition fee will be assessed. If the tuition has already been paid, a refund will be generated by the Student Financials Office and mailed to the local address on file. If a student officially withdraws from the University prior to the end of the fourth week of classes, a 25 percent refund, will be issued.

The transcript of a student who officially withdraws after the Drop/Add period and before the end of the eighth week of the term will reflect a 'WI' for each course.

The transcript of a student who stops attending the University without officially withdrawing from the University will reflect an 'F' grade for each course.

A student may appeal the deadline for a late withdrawal **(from all courses)** by submitting the Appeal to Drop/Withdraw Without Refund form. A withdraw after the deadline will be approved only in the following exceptional circumstances:

- Death of a student or immediate family member (parent, spouse, child, sibling). Death certificate required.
- Involuntary call to military service. Copy of orders required.
- Illness of student of such severity or duration to preclude completion of courses. Confirmation by a physician required.

The deadline to submit appeals is one year after the end of the term in which the course was taken.

The student must provide appropriate documentation. Upon approval of the appeal, course instructors will designate whether the student was passing or failing the courses at the time of the appeal to withdraw. A 'WP' grade indicates the student withdrew from classes with a passing grade. A 'WF' grade indicates the student withdrew from the classes with a failing grade. The 'WF' grade is calculated in the student's term and cumulative GPA. The deadline to submit this appeal is one year after the end of the term in which the course was taken.

RETURN OF FINANCIAL AID POLICY

Federal regulations mandate that the Financial Aid Office complies with the Return to Title IV Funds policy in which any student that drops all courses or officially withdraws before completing 60% attendance for the semester, may be liable to repay a portion of the Title IV aid that was disbursed. Title IV funds include the following financial aid programs: ACG, SMART, Pell, SEOG, Perkins Loan, Subsidized and Unsubsidized Stafford Loans, and PLUS Loans. The amount of the return is based on formulas established by the U.S. Department of Education.

Grading System

Grade		Points Per Credit Hour
A		4.00
A-		3.67
B+		3.33
B		3.00
B-		2.67
C+		2.33
C		2.00
C-		1.67
D+		1.33
D		1.00
D-		0.67
F	Failure	0.00
F0	Failure 60% requirements	0.00
P	Satisfactory (Pass)	N/A
IN	Incomplete[1]	N/A
W	Withdrew by appeal	N/A
WI	Withdrew from University	N/A
WP	Withdrew from University after deadline with passing grade	N/A
WF	Withdrew from University after deadline with failing grade	0.00
AU	Audit	N/A
DR	Dropped Course	N/A
DP	Dropped after deadline with passing grade	N/A
DF	Dropped after deadline with failing grade	0.00
NR	Grade Not Reported or Invalid[2]	N/A
EM	Examination	N/A

[1]IN is only a temporary symbol. It will revert to the default grade after two consecutive terms.

[2]NR is only a temporary symbol. It will default to an 'F' after two consecutive terms if it is not changed by the instructor.

Note: All courses for which a student is officially registered at the end of the Drop/Add Period and for which a Letter Grade, a 'DF', or a 'WF' is received are calculated in the GPA.

GRADING OPTIONS

The Colleges and the Schools make the determination of the grading option of each course. A course may be offered for a letter grade as listed above or Pass/Fail; or for an optional grade (if designated by a dept.) in which the student has a choice of either receiving a letter grade or pass/fail; or the student may choose to audit a course and an 'AU' grade will be recorded on the student's record. The grading option must be indicated at the time of registration. The grading option cannot be changed after the Drop/Add period (first week of classes). There are no exceptions to this deadline.

To register for an audit, the student must obtain the permission and signature of the instructor of the course to be audited. Once the course is registered for as 'Audit', the grading option cannot be changed.

INCOMPLETE GRADE

An incomplete grade is a temporary symbol given at the discretion of the instructor for work not completed, because of serious interruption not caused by the student's own negligence. An incomplete must be made up as quickly as possible but no longer than two consecutive semesters after the initial taking of the course or it will automatically default to the grade that the student earned in the course. The student must not register again for the course to make up the incomplete. There is no extension to the two consecutive semester deadline.

Students who have incomplete grades on their records, must remove the incomplete by the end of the fourth week of the term in which they plan to graduate. Failure to do so will result in a cancellation of graduation. The student will need to reapply for graduation.

FORGIVENESS POLICY

The forgiveness policy is a method by which students may repeat a limited number of courses to improve their grade point average (GPA). Only the grade received on the last repeat is used in the GPA calculation. Under the University's forgiveness policy, students must file a Repeated Course Form with the Office of the Registrar. There is no time limit on the use of the forgiveness policy for grades; however, the forgiveness policy cannot be used once a degree is posted. All courses taken with the grades earned will be recorded on the student's transcript. The repeated course form will not be processed if the first or repeated grade received is 'DR', 'DP', 'IF', 'W', 'WI',

'WP', 'AU', 'NR', or 'EM'. Repeated courses will be appropriately designated (T: attempted; R: last repeat).

Undergraduate students may use the forgiveness policy a maximum of three times for the purpose of improving their GPA. The same course may be repeated up to three times or the student may use the three opportunities to apply to three different courses. Only the final grade for the three courses repeated under the forgiveness policy will be counted in computing the student's GPA. In order for a course to be considered as repeated and adjusted in the GPA, the course must be the same and must be repeated at the University. Students who have used their three options under the forgiveness policy may still repeat courses; however, both the original grade and any additional grades received through repetitions of the course will be used in computing the GPA.

A course taken on a letter grade basis must be repeated on the same basis. Students will not be allowed additional credit or quality points for a repeated course unless the course is specifically designated as repeatable (independent study, studio courses, etc.). Students not using the forgiveness policy may still repeat a course. All attempts will apply to computation of the GPA but credit for one attempt will apply toward graduation. Students must check with the appropriate academic department to determine whether there are additional restrictions on repeating courses.

DEPARTMENTAL CREDIT BY EXAMINATION

Departmental credit by examination is available for certain courses. A student who has already gained knowledge of a subject offered at the University and who wishes to take an examination in lieu of taking the course should discuss the matter with his/her academic advisor and with the department offering the course.

Awarding departmental credit by examination is the prerogative of each academic unit. To receive credit by examination, a student must be a fully admitted degree-seeking student, register, and pay for the course. Once the student is awarded the departmental credit by examination, an 'EM' grade will be recorded on the transcript.

CHANGE OR CORRECTION OF GRADES

Once submitted, end-of-semester grades (except incompletes and NRs, which default at the end of two consecutive terms) are final. They are subject to change only through a Change of Grade form to correct an error in computation or transcribing, or where part of the student's work has been unintentionally overlooked.

FINAL EXAMINATIONS

Final examinations will be given during the week following the last day of classes each semester. The Summer Semesters do not have final examination periods and course examinations may be given at the discretion of the faculty member teaching the course.

FINAL GRADES

Final grades are available through PantherSoft on the World Wide Web (http://sis.fiu.edu), or through the on-campus kiosks.

DEAN'S LIST

Any fully admitted undergraduate student who earns a semester average of 3.5 or higher on nine or more semester credit hours of coursework for which grade points are earned, is placed on the semester Dean's List. This achievement is noted on the student's permanent academic record (transcript).

APPLICATION FOR GRADUATION

Students who plan to graduate are required to apply for graduation through PantherSoft on the World Wide Web (http://sis.fiu.edu), or through the on-campus kiosks.

This form must be submitted before the last day of classes of the academic semester prior to graduation. Students turning in the Application for Graduation after the deadline will graduate the following semester.

Students who do not graduate must re-apply for graduation and complete the remaining requirements needed to graduate.

ACADEMIC HONORS

Summa Cum Laude

To graduate Summa Cum Laude, a student must have earned a cumulative FIU GPA of 3.90 and higher.

Magna Cum Laude

To graduate Magna Cum Laude, a student must have earned a cumulative FIU GPA of 3.70 - 3.899.

Cum Laude

To graduate Cum Laude, a student must have earned a cumulative FIU GPA of 3.50 - 3.699.

To graduate with the above honors, the student must have completed a minimum of 40 semester hours of coursework at FIU for which grade points (Pass/Fail does not apply) are earned at the university.

ACADEMIC WARNING, PROBATION, AND DISMISSAL

Warning

An undergraduate student whose cumulative GPA falls below a 2.0 will be placed on warning, indicating academic difficulty.

Probation

An undergraduate student on warning whose cumulative GPA falls below 2.0 will be placed on probation, indicating serious academic difficulty. The College/School of the student on probation may indicate the conditions which must be met in order to continue enrollment.

Dismissal

An undergraduate student on probation whose cumulative and semester GPAs fall below a 2.0 will automatically be dismissed from his/her program and the University. An undergraduate student will not be dismissed prior to attempting a minimum of 20 semester hours of coursework. The student has ten working days to appeal the dismissal decision. This appeal must be made in writing to the dean of the College or the School in which the student is admitted. The dismissal from the University is for a minimum of one year. After one year, the student may apply for re-admission (see Re-admission) to the

University in the same or a different program, or register as a non-degree seeking student.

Dismissed students applying for re-admission or registering as non-degree seeking students are placed on academic probation.

RE-ADMISSION

An admitted degree-seeking student who has not enrolled in any course at the University for four semesters or more will be required to apply for re-admission. The student must meet the University and program regulations in effect at the time of re-admission. Students must contact the Office of Admissions to apply for re-admission.

Students with Internet access can visit FIU's website at http://www.fiu.edu/orgs/admiss/ download the application, complete and mail to Florida International University, Office of Admissions, P.O. Box 659003, Miami, Florida 33265-9003.

UNDERGRADUATE ACADEMIC AMNESTY

FIU undergraduate students who apply for re-admission (with a GPA below a 2.0) and have not been enrolled in any university or college for at least six calendar years may apply for academic amnesty. If re-admitted, students will begin with a new grade point average of 0.0. No grades previously earned will be included in the University grade point average, however, credit and GPA for previous University courses, in which a grade of "C" or better was earned may be applied toward a degree, subject to determination by the College of the student's major. All prior courses attempted and grades received will remain on the student's transcript. Admitted or re-admitted students may not petition for any retroactive change in their academic record utilizing this policy. Students applying for academic amnesty to a limited access program must meet the admission criteria of that program. Students must follow the regular re-admission application process and complete the amnesty form for consideration to be determined by the student's academic dean. Re-admission applications and academic amnesty applications may be obtained in the Office of Admissions.

UNDERGRADUATE ACADEMIC SALVAGE

FIU undergraduate students who are academically dismissed from the University or who have a GPA below a 2.0, and who subsequently receive an Associate of Arts degree from another Florida public institution of higher learning may apply for academic salvage. If re-admitted, students will begin with a new FIU grade point average of 0.0. Students re-admitted under Academic Salvage will be credited with a maximum of 60 semester credit hours. Students must follow the regular re-admission application process and complete the Academic Salvage form for consideration by the student's academic dean. Re-admission applications and academic salvage applications may be obtained in the Office of Admissions.

STUDENT RECORDS

Florida International University assures the confidentiality of student educational records in accordance with State University System rules, state, and federal laws including the Family Educational Rights and Privacy Act of 1974, as amended. Student academic records are maintained in the Office of the Registrar and in the academic department of the student's major. Students in some degree programs maybe subject to background checks and/or drug testing prior to eligibility for internships or practicums. All currently enrolled and former students have the right to review their records to determine their content and accuracy. Parents of dependent students, as defined by the Internal Revenue Code, and who give evidence of the dependent status, have the same rights. For the cost of photocopying, students may generally have copies of any documents in their file, except for other institutions' transcripts.

RELEASE OF STUDENT INFORMATION FROM EDUCATIONAL RECORDS

The disclosure or publication of student information is governed by policies of Florida International University and the Florida Board of Education of the State University System of Florida within the framework of State and Federal Laws, including the Family Educational Rights and Privacy Act of 1974, as amended.

A student's consent is required for the disclosure or publication of any information which is a) personally identifiable and b) a part of the educational record. However, certain exceptions to that generality, both in types of information that can be disclosed and in access to that information, are allowed within the regulations of the Family Educational Rights and Privacy Act. The following persons and organizations may have access to personally identifiable information without a student's prior consent:

Faculty, administrators, staff and consultants employed by the University whose work involves:

1. Performance of administrative tasks which relate to students;
2. Performance of supervisory or instructional tasks which relate to students; or
3. Performance of services which benefit students.

A student's prior consent is not required for disclosure of portions of the educational record defined by the institution as Directory Information. The following Directory Information may be released by the University Registrar:

1. Name, local and permanent address and telephone number(s);
2. Date and place of birth;
3. E-mail address.

The information above, designated by the University as Directory Information, may be released or published by the University without a student's prior written consent unless exception is made in writing by the student or the parents of a dependent student.

In order to prevent access to or release of Directory Information, students or the parents of dependent students, must notify the Registrar (PC 130), in writing prior to the first class meeting day of the semester. Access to, or release of Directory Information will be withheld until further written instruction is received from a student or the parents of a dependent student.

Students have a right to challenge the accuracy of their educational records and may file written requests to amend these records. The Office of the Registrar (PC 130) should be contacted for further information regarding the procedure to follow for questions or problems.

For complete information regarding the policies outlined above, please contact:

University Registrar
Florida International University
University Park - PC 130
Miami, Florida 33199
e-mail: Register@fiu.edu

PANTHER ID

The University has implemented an identification system-Panther ID. This idenfication number is the primary identification number for all students. Applicants and current students can retrieve this number by going to the PantherSoft website **http://panthersoft.fiu.edu.**

SOCIAL SECURITY NUMBER

Students are expected to have a valid social security number. Foreign students are encouraged to apply for a Social Security Number if they plan on working on campus. However, it is not required for enrollment purposes.

TRANSCRIPTS

The transcript is the complete student record of courses taken at the University, in addition to the number of transfer credits accepted. The GPA is calculated for all courses taken at the University after Fall Term 1975. Once a baccalaureate, master's, or doctorate degree is earned, the GPA calculation starts again.

Students must request their transcript in online. Transcripts will be mailed out the next business day. The transcript will not be released if the student has a University financial liability and/or a defaulted student loan. There is $5.00 charge per transcript.

CLASS ATTENDANCE

The University does not have an official class attendance policy. However, individual faculty may establish attendance criteria in classes where deemed necessary. Academic units may establish their own attendance policies with the approval of the Provost.

POLICY STATEMENT WITH REFERENCE TO RELIGIOUS HOLY DAYS

A faculty member who wishes to observe a religious holy day shall make arrangements to have another instructor conduct the class in his/her absence, if possible, or shall reschedule the class.

Because there are some classes and other functions where attendance may be considered essential, the following policy is in effect:

1. Each student shall, upon notifying his/her instructor, be excused from class to observe a religious holy day of his/her faith.

2. While the student will be held responsible for the material covered in his/her absence, each student shall be permitted a reasonable amount of time to make up any work missed.

3. No major test, major class event, or major University activity will be scheduled on a major religious holy day.

4. Professors and University administrators shall not arbitrarily penalize students who are absent from academic or social activities because of religious observances.

VETERANS INFORMATION

The Office of Veterans Affairs assists all veterans and their dependents who wish to receive VA educational benefits. The Office also provides personal counseling, fee deferments, tutorial assistance, and work-study jobs. The VA Office is located in PC 130, University Park; and in ACI-100, Biscayne Bay Campus.

Veterans who are planning to attend the University should contact the Office of Veterans Affairs two months prior to the anticipated date of entry. Such time is required to expedite the processing of paperwork for educational allowances from the Veterans Administration.

	Training Status
Full time	12 Credits
3/4 time	9 Credits
1/2 time	6 Credits
Less than 1/2 time	5 Credits

Rate of Payments/Number of Dependents

For rate of monthly payment of educational allowances for veterans and dependents, please contact the Office of Veterans Affairs.

For additional information regarding other Veterans Educational Programs, contact the Office of Veterans Affairs at University Park, PC 156, 348-2838.

ENROLLMENT CERTIFICATION

The Office of the Registrar is responsible for certification of student enrollment. Certification of enrollment cannot be processed if the student has a financial liability.

ENROLLMENT STATUS

Undergraduate:

Full time: 12 credits or more.
Half time: 6 - 11 credits.
Less than half time: 5 credits or less.

Enrollment status is for continuous enrollment for the semester in which the student attended. Reduction of course load will reflect the student's status. Contact the Office of the Registrar for further details.

{**Note:** Enrollment status for Financial Aid recipients may differ on federal aid regulations.}

FLORIDA RESIDENCY INFORMATION

Florida Student Definition

For For the purpose of assessing registration and tuition fees, a student shall be classified as a Florida or non-Florida Resident.

To qualify as a Florida Resident, the student must:

1. Be a U.S. Citizen, Resident Alien, parolee, Cuban National, Vietnamese Refugee, or other legal alien so designated by the U.S. Immigration and Naturalization Service.

2. Have established a legal residence in this State and have maintained that legal residence for 12 months immediately prior to the start of the term in which the student is seeking Florida resident classification. The student's residence in Florida must be a bona fide domiciliary rather than for the purpose of maintaining a mere temporary residence or abode, incident to enrollment in an institution of higher education, and should be demonstrated as indicated below (for dependent students

as defined by IRS regulations, a parent or guardian must qualify).

3. Students claiming to be independent must meet one of the following:

a. The student is 24 years of age or older by the first day of classes of the term for which residency status is sought;

b. The student is married;

c. The student has children who receive more than half their support from the student;

d. The student has other dependents who live with and receive more than half of their support from the student;

e. The student is a Veteran of the United States Armed Forces or is currently serving on active duty in the United States Armed Forces for purposes other than training;

f. Both of the student's parents are deceased or the student is or was (until age 18) a ward/dependent of the court;

g. The student is working on a master's or doctoral degree during the term for which residency status is sought;

h. The student is classified as an independent by the financial aid office at the institution.

4. Submit the following documentation (or in the case of a dependent student, the parent must submit documentation), prior to the first day of classes for the term for which resident status is sought (late submissions will be considered for the following academic term):

a. Documentation establishing legal residence in Florida (this document must be dated at least one year prior to the first day of classes of the term for which resident status is sought). The following documents will be considered in determining legal residence:

(1) Declaration of domicile

(2) Proof of purchase of a home in Florida which the student occupies as his/her residence.

(3) Proof that the student has maintained residence in the state for the preceding year (e.g., rent receipts, employment record).

b. Documentation establishing bona fide domicile in Florida which is not temporary or merely incident to enrollment in a Florida institution of higher education. The following documents will be considered evidence of domicile even though no one of these criteria, if taken alone, will be considered conclusive evidence of domicile (these documents must be dated at least one year prior to the first day of classes of the term for which Florida resident status is sought):

(1) Declaration of domicile

(2) Florida voter's registration

(3) Florida driver's license

(4) Proof of real property ownership in Florida (e.g., deed, tax receipts).

(5) Employment records or other employment related documentation (e.g., W-2, paycheck receipts), other than for employment normally provided on a temporary basis to students or other temporary employment.

(6) Proof of membership in or affiliation with community or state organizations or significant connections to the State.

(7) Proof of continuous presence in Florida during the period when not enrolled as a student.

(8) Proof of former domicile in Florida and maintenance of significant connections while absent.

(9) Proof of reliance upon Florida sources of support.

(10) Proof of domicile in Florida of family.

(11) Proof of admission to a licensed practicing profession in Florida.

(12) Proof of acceptance of permanent employment in Florida.

(13) Proof of graduation from high school located in Florida.

(14) Any other factors peculiar to the individual which tend to establish the necessary intent to make Florida a permanent home and that the individual is a bona fide Florida resident, including the age and general circumstances of the individual.

c. No contrary evidence establishing residence elsewhere.

d. Documentation of dependent/in-dependent status (IRS return or affidavit)

A student can also qualify for Florida residency by one or more of the following criteria:

1. Become a legal resident and be married to a person who has been a legal resident for the required twelve-month period, or,

2. Be a member of the Armed Forces on active duty stationed in Florida, or a spouse or dependent, or,

3. Be a member of the full-time instructional or administrative staff of a state public school, state community college or state University in Florida, a spouse or dependent, or,

4. Be a dependent and have lived five years with an adult relative who has established legal residence in Florida, or,

5. Be a former student at a public institution of higher education who was properly classified as a resident who re-establishes domiciliary status and re-enrolls within a period of twelve months, or,

6. Make a statement as to the length of residence in Florida and qualification under the above criteria.

TERM COURSES ARE OFFERED

Listed next to certain courses in this catalog are the designations 'F', 'S', and 'SS'. These designations indicate that the academic department normally offers these courses during the 'F' (Fall), 'S' (Spring), 'SS' (Summer) terms. Students should be aware that there are circumstances beyond the University's control (low enrollments, financial constraints, or other extenuating situations) which may result in the courses not being offered as indicated. The University is not responsible for failure to offer a course as indicated.

Tuition & Fees

FEES

Registration and tuition fees are established by the Board of Trustees as required by the Florida Legislature. These fees are subject to change without notice. The currently authorized fees for academic year 2007-2008 are:

PER CREDIT HOUR FEES

Estimated Per Credit Hour Fees

	Florida Resident	Non-Florida Resident
Undergraduate	$105.72	$519.02
Student Fees		
Athletic	$10.00	$10.00
Health	$67.20	$67.20
Parking	$71.69	$71.69

****Each Fall semester, Tuition and fees may be subject to a minimum 3% increase**

Registration fees for course audits are the same as the above fees, except that no assessment will be made for the out-of-state portion.

FEE WAIVERS

Students using a fee waiver for part of the fee payment must pay their portion **on or before the last day to pay fees**. Students who are responsible for a portion of their fees in addition to the fee waiver will be required to pay their portion before the fee waiver is applied.

State employees using the State employee fee waiver to pay their fees must register on or after the day established in the official University calendar for State employee registration. The State Employee Fee Waiver pays up to six hours of tuition and fees per term. Summer sessions A, B, and C are considered one term. Employees who register for more than six hours will be required to pay for the additional credit hours plus all per student related fees. A properly completed and approved waiver form must be presented at the Student Financials Office by the date published for the last day to pay fees. Fee Waivers will be processed only for those courses shown on the approved fee waiver request form presented at the time of registration. A permit will not be accepted with the tuition waiver program. Only one fee waiver form per employee will be accepted each semester. The State employee fee waiver will not be accepted as payment for course registrations prior to the announced date for state employee registration. State Employee Fee Waivers do not cover Thesis, Dissertation, Internships, Directed Individual Study, Non Credit Courses, Sponsored Credit Programs, Certificate Programs, Field Experience, Practicum, or courses taken for audit grades.

Senior citizens fee waivers are available to persons 60 years of age or older who meet the requirements of Florida residency as defined in this catalog. The fee waiver allows qualified individuals to attend credit classes on an audit basis. Senior citizens using the fee waiver must register during the first week of classes. Senior citizens using the fee waiver must pay the photo id fee during their first term in attendance.

Florida law requires that State employee fee waivers and senior citizen fee waivers be granted on a space available basis only; therefore, individuals using these waivers must comply with the procedures outlined in the schedule of classes for each semester.

Refunds will not be given for employees who have registered and paid prior to the state employee registration day and wish to use the fee waiver.

Fee Payment

Fees may be paid at the Student Financials Office at University Park, PC 120, or at Biscayne Bay Campus ACI 140 or online through the on-line PantherSoft self-service system. The on-line payment system accepts credit card payments of AMEX, DISCOVER and MASTERCARD only. At this time, we do not accept VISA for tuition and fee payments. Check payments may also be done through the on-line system. Broward students may pay by mail or at the Student Financials Office at University Park or Biscayne Bay Campus. Night drop boxes outside the Student Financials Offices are available 24 hours a day for fee payments by check or money order through the last day to pay fees. The University is not responsible for cash left in the night drop or sent through the mail. Failure to pay fees by the established deadlines will cause you to be dropped from all courses. See *Fee Liability* below.

Late Registration Fee

Students who register after the established deadline for registration will be subject to $100 late registration fee.

Late Payment Fee

Students who pay fees after the established deadline for payments will be subject to a $100 late payment fee. If applicable, this fee may be assessed in addition to the late registration fee described in the preceding section.

FLORIDA PREPAID TUITION PLAN STUDENTS

Students utilizing the Florida Prepaid Tuition Plan must pay their portion of the student fees not covered by the plan by the published last day to pay fees. If you are a financial aid recipient – the portion of the student fees will not be deducted from your financial aid award. Please contact the Student Financials Office to pay the balance due.

FINANCIAL AID RECIPIENTS

All financial aid recipients whose financial aid award meets or exceeds tuition, excluding Federal Work Study, will automatically receive a tuition deferment. If your financial aid awards do not cover full tuition & fees students must pay the difference between their financial aid awards (less Federal Work Study) and their final fee as posted.

Students can view their "Anticipated Aid" online through PantherSoft.

FEE LIABILITY

Students are liable for all fees associated with all courses in which they are registered at the end of the drop/add period. The fee payment deadline is published in the official University calendar. If fees are not paid in full by the published dates, all courses will be canceled.
Registration is not complete until all fees are paid in full.

REINSTATEMENT OF CLASSES

Appeals for reinstatement of registration for classes dropped for fiscal reasons must be filed in writing on the prescribed form with the Student Financials Office by the time specified on the cancellation notice. Reinstatement will be considered for all classes on the class schedule at the end of the drop/add period. Reinstatement cannot be requested selectively for certain classes. All reinstatement activity, including fee payment, must be completed by the date on the cancellation notice. All students whose registrations have been reinstated will be assessed a late payment fee. If the late registration fee is applicable it will also be assessed.

PARKING RULES AND REGULATIONS

All persons who park vehicles on the university's campuses must register their vehicle(s) with the department of Parking and Traffic, obtain a decal or permit, and display the decal or permit, as prescribed by the Parking Rules and Regulations. The University assumes no liability for vehicles parked or operated on University property. The issuance of a decal or permit does not guarantee a place to park.

Parking and Access Fees

All currently enrolled students will pay a Parking and Access Fee each semester. The fee will appear on the Student Fee Schedule.

Students must provide the following information to the Department of Parking and Traffic to obtain a parking decal: social security number, proof of current class registration, and current vehicle registration. All decals must be permanently affixed to the outside of the vehicle, either on the left side of the rear bumper or lower left corner, on the outside of the rear window. All decals are valid until the expiration date indicated on the decal or permit. A duplicate hang tag will be issued upon request for an additional charge of $10.00 + tax. This hang tag is valid only for the vehicle under which it is registered. Hang tags are available to persons who have purchased an original decal for the current semester or year. The hang tags are for additionally owned vehicles and for situations where the original decal must be replaced due to an accident, painting, etc.

Housing

All students in university housing complexes need to obtain a current semester housing sticker from the Department of Parking and Traffic. This sticker allows the vehicle to be parked legally in student housing areas. This sticker is valid for the current semester only. This housing sticker should be affixed to the left or right side of their current student decal.

Disabled

Any person who has been certified in accordance with Sections 320.084, 320.0848, or 320.0842, Florida Statutes, and has been issued a Disabled placard by the Department of Motor Vehicle Bureau shall obtain and display a university parking decal in the classification which would otherwise be appropriate.

Towing and Impoundment

The university may tow and impound any vehicle, which is found to be parked illegally or in violation of these rules.

Rules and Regulations Pamphlets

A copy of the University Parking Rules and Regulations is available at the department of Parking and Traffic located at University Park, Parking Garage One or Biscayne Bay Campus, Wolfe University Center, Room 131. It is the responsibility of each student to become familiar and comply with the University's parking and traffic rules and regulations.

Other Fees

Library Fines

Per book per library hour	.25
Maximum fine per book	$5.00
Lost book fine	$51.15

Note: These fees are subject to change as permitted by law. Additional fees may be added and special purpose fees may be assessed in some instances.

CHECKS

The University will accept personal checks for amounts due to the University. These checks must be in the exact amount due only. The Student Financials Office will not accept checks above the amount due, third party checks or checks for cash. State law requires that a service fee be assessed on a check returned unpaid by the bank for any reason. Service fees are based on the amount of the unpaid check. Checks for $0.01 - $50.00 are charged a $25.00 fee; $50.01 - $300.00, a $30.00 fee; $300.01 - $800.00, a $40.00 fee; and a fee of 5% of the amount of the check for all checks greater than $800.00. Checks returned by the bank can be redeemed only by cash, cashier's checks, or money orders. A personal check will not be accepted to replace a dishonored check. If a check is returned from an on-line payment, returned check fines will also be charged as per the amounts indicated above.

Returned checks will be assigned to an agency for collection if not promptly paid. When an account has been assigned, the collection agency fee will be added to the University charges for collection at the current contract rate. Returned checks on student accounts will result in cancellation of classes and will require petition for reinstatement. See reinstatement of classes above.

The Student Financials Office will not accept a check on any student's account which has had two previous dishonored checks.

REFUNDS

Refunds will be processed and mailed to the address shown on the Registrar's files to all students whose fee accounts show an overpayment after the last day to pay fees. Students now have the option to add a direct deposit account. Information is available on line through Learner Services in the Finances icon (add a direct deposit link). Students due a refund will not be required to submit a refund application to receive their refund, it will automatically be calculated. If there is an amount due to

the university in the accounts receivable system, that amount will be deducted from any refund due.

Students who have completed registration and have paid all fees due and have completely withdrawn from the University prior to the end of the fourth week of classes are eligible for a refund of 25% of total fees paid.

In the following exceptional circumstances, a full refund of total fees paid will be made upon presentation of the proper documentation:

- Death of a student or immediate family member (parent, spouse, child or sibling). Death certificate required.
- Involuntary call to military service. Copy of orders required.
- Illness of student of such severity or duration to preclude completion of courses. Confirmation by a physician required.

Processing of refunds will begin after the end of the add/drop period for each semester.

Appeals for tuition refunds must be submitted in writing to the Office of the Registrar within one year after the end of the term for which the refund is requested. There are no exceptions to this policy. Refunds for financial aid recepients will be determined based on the "Return of Title IV Policy". Please refer to "the award terms and condition booklet" for specific details.

REPEAT COURSE TUITION SURCHARGE

Repeated Attempts of Courses

The 1997 Legislature passed House Bill 1545 mandates that undergraduate students pay additional charges for the **third time a student either takes or attempts the same college credit course.** Any undergraduate course taken, beginning Fall 1997, and all courses taken after this date will be subject to the repeat surcharge. Attempted hours mean those hours dropped/withdrawn after the drop/add period or failed. Withdrawals, incompletes and dropped courses will be subject to the tuition surcharge, if they are feeliable. All students are included regardless of type of residency. Undergraduate courses are 1000 to 4000 level courses.

Exceptions:

- Any course work taken prior to Fall 1997
- Credits earned through: cooperative education, military, waivers, audits, individualized study, courses that are repeated as a requirement of a major (except courses repeated more than 2 times to increase GPA or meet minimum course grade requirements), courses intended to continue over multiple semesters
- Attempts taken at previous institutions prior to enrolling at FIU
- Any non fee liable withdrawal of dropped course
- Graduate level courses (courses at 5000 level or above)
- Effective Summer 2000 Registration, universities may make exceptions based on extenuating circumstances and financial hardships. Students wishing to appeal the repeat surcharge may complete an "Appeal of Repeat Course Surcharge" form, which may be obtained in the Registrar's Office, PC 130.

PAST DUE ACCOUNTS

Delinquent accounts are sufficient cause to prohibit registration, graduation, release of transcripts, or release of diplomas.

The University is not able to grant credit or time payments for any fees.

The University reserves the right to assign any past due account to an agency for collection. When an account has been assigned, the collection agency fee will be added to the University charges for collection at the current contract rate.

Deadlines

Students are reminded that deadlines are strictly enforced. The University is not able to grant credit or to extend the fee payment period beyond the time set in its official calendar. The University does not have the authority to waive late fees unless it has been determined that the University is primarily responsible for the delinquency or that extraordinary circumstances warrant such waiver. The University has no authority to extend deadlines for individual students beyond those set by the official calendar.

Financial Aid

WHAT IS FINANCIAL AID?

Financial aid is a source of financial support provided by federal, state and local governments, universities, community organizations, and private corporations to help students meet the cost of attending college. It includes gift-aid (grants and scholarships) and self-help aid (loans and student employment).

- Grants are awards based on financial need which do not have to be repaid.
- Scholarships are non-repayable awards based either on merit, special talent and/or financial need.
- Student loans are available to students and/or their parents at low interest rates (6.75% - FFEL).
- Student employment allows students to earn money toward their education by working part-time while attending school.

APPLYING FOR ASSISTANCE

The Free Application for Federal Student Aid (FAFSA) is the form used annually to apply for most types of financial assistance. FIU's school code **009635** is required when completing the FAFSA. Applications for financial assistance are available in January for the following academic year which begins in August. FIU's annual priority deadline is March 1st. Applications completed after this deadline will be processed in order of completion.

The FAFSA is available in two forms:

- electronic form - to complete the FAFSA electronically via the internet, the web site address is: **http://www.fafsa.ed.gov/**. It is recommended to file on the web as it provides a more accurate completion of the form and a faster turn around. Note: FAFSA web filers will require a Federal PIN (Personal Identification Number) to be used in lieu of student & parent signatures. To obtain a Federal PIN link to: **http://www.pin.ed.gov**.
- paper form - available from Financial Aid Office. Using the Panther ID, student's may check the "TO DO LIST" online for any required documents that are requested for file completion. Most required documents for file completion are available through the Financial Aid Office web page under Required forms at: **www.finaid.fiu.edu**.

ADMISSIONS

To be eligible for most financial aid programs, students must be admitted to a degree program. However, students should not wait until they are admitted to apply for assistance. Students who enroll in qualified Certificate Programs are only eligible for student loans.

SUMMER ASSISTANCE

Student loans are the primary source of assistance for summer enrollment. Students are required to have the FAFSA application on file. Summer awards are automatically packaged, therefore, a separate Summer application is not required.

TRANSFER STUDENT PROCEDURES

Financial aid cannot be transferred from one post-secondary institution to another during the academic year. Students planning to transfer in mid-year should complete the FAFSA using both their current institution and Florida International University (**Federal School Code 009635**) to ensure consideration for all applicable financial assistance.

ELIGIBILITY CRITERIA

To qualify for most need-based financial assistance, students must meet the following basic eligibility requirements:

- demonstrate financial need;
- be a U.S. citizen or eligible non-citizen;
- be registered with Selective Service, if required;
- not be in default on a loan, or owe a repayment on Title IV aid received at any institution;
- be enrolled at least half-time in an eligible program of study; and,
- maintain satisfactory academic progress.

Additional requirements may apply depending on the aid programs awarded.

DETERMINING FINANCIAL NEED

Financial need is defined as the difference between the estimated cost of attendance and the amount students and their families can reasonably be expected to contribute towards their educational expenses. Need analysis is a federally mandated formula which measures, in an equitable and systematic way, how much students and their families can afford to pay towards their education. Income, assets (excluding their primary residence), family size, number of family members attending college, and other items are evaluated to give a complete assessment of a family's financial ability.

VIEWING YOUR FINANCIAL AID

Students can view application status and awards using the PantherSoft web-based system with their Panther ID through the www.MYFIU.edu or through the Financial Aid webpage: www.finaid.fiu.edu -link to MY FINANCIAL AID.

AWARDING PROCEDURES

Award decisions for new students who complete their financial aid application will be issued annually in mid February with an Early Estimated Award Notice. A financial aid package may consist of a combination of grants, loans, and student employment. Other sources of assistance such as merit awards and private and institutional scholarships will be taken into consideration when preparing the award.

ACADEMIC MERIT ASSISTANCE

The University's commitment to academic excellence is highlighted through programs that honor students who are recognized as National Merit, National Achievers and National Hispanic Scholars. Additional awards for outstanding high school students are awarded based on SAT scores and grade point average. For detailed

information regarding these programs, contact the Office of Admissions at (305) 348-2363.

FINANCIAL AID SERVICES

- ***Financial Aid Counseling:*** A Financial Aid administrator is available on a walk-in basis to assist students with special problems, technical questions and exceptions.
- ***Web Access:*** Students may obtain information on the status of their application through the Financial Aid webpage: www.finaid.fiu.edu at MY FINANCIAL AID link or through www.MYFIU.edu.
- ***LIVE CHAT:*** Students can communicate on-line with Financial Aid representatives through LIVE CHAT available through the Financial Aid webpage at: www.finaid.fiu.edu.

For additional information contact the Financial Aid Office by telephone at (305) 348-7272 or by visiting at University Park, PC 125 or Enrollment Services at the Biscayne Bay Campus, ACI 100.

General Information

HUMAN RESOURCES

The Division of Human Resources provides human resource management services for all employees in the academic and administrative areas including student employees, research and graduate assistants, college work study and temporary employees on all campuses. The division comprises the following areas: HR Administration, Workforce Recruitment, Compensation Administration, Employee and Labor Relations, Payroll and Employee Records, Benefits Administration, HR Management System, Organization Development and Learning, and Equal Opportunity Programs.

The University Park office is located in PC 224, (305) 348-2181. The Biscayne Bay Campus office is located in LIB 322, (305) 919-5545. For additional information, visit the Division of Human Resources website at: **www.fiu.edu/hr**.

AMERICANS WITH DISABILITIES ACT (ADA)

The Director for Equal Opportunity Programs is the University's ADA Coordinator and has responsibility for ensuring access to employment, academic and public programs for persons with disabilities. The Disability Resource Center is responsible for student accommodations which include the provision of auxiliary aids and services to ensure access to academic programs.

EQUAL OPPORTUNITY PROGRAMS

This office provides leadership and direction in the administration of the University's equalization programs for women and minorities in several ways. It prepares the University's annual Affirmative Action Plan and the State Equity Accountability Plan, assists University units in implementing and monitoring affirmative action procedures; provides oversight to the University Diversity Program; provides a channel for employee and student grievances regarding discrimination or issues indicating a need for additional affirmative actions; administers implementation of the Policy to Prohibit Sexual Harassment; coordinates University compliance with the Americans with Disabilities Act and with Title IX of the Education Amendments of 1972; and promotes effective relationships between the University and community organizations. Equal Opportunity Programs also administers the State University System's scholarship programs funded for the purpose of increasing minority enrollment. In addition, the Office maintains a liaison relationship with State and Federal agencies dealing with EEO and affirmative action. The Office is located in PC 215, University Park, (305) 348-2785. For additional information, visit the Office of Equal Opportunity Programs website at: www.fiu.edu/~eop.

HIV/AIDS POLICY

Students and employees of the University who may become infected with the HIV/AIDS virus will not be excluded from enrollment or employment or restricted in their access to University services or facilities, unless individual medically-based judgments establish that exclusion or restriction is necessary for the welfare of the individual or for other members of the University community. The University has established an HIV/AIDS Committee which includes representatives from major University divisions and other staff as appropriate. The Committee, is responsible for monitoring developments with regard to HIV/AIDS, acting upon and administering the University's Policy on HIV/AIDS in specific cases, and coordinating the University's efforts in educating the University community on the nature of the disease. In addition, the Committee will meet as needed to consider individual occurrences of the disease which require University action.

Persons who know or suspect they are HIV-positive are expected to seek expert medical advice and are obligated, ethically and legally, to conduct themselves responsibly for the protection of others.

The University has designated HIV/AIDS counselors on both campuses who are available to provide further information on this subject. The entire HIV/AIDS policy is located on the FIU Health Care and Wellness Center web site:
http://www.fiu.edu/~health/clinicalservices/HIVpolicy.htm.

Contact the Health Care and Wellness Center for more information at the University Park Campus, (305) 348-3080 or at the Biscayne Bay Campus, (305) 919-5620.

SEXUAL HARASSMENT, NONDISCRIMINATION, EDUCATIONAL EQUITY

All members of the University Community are entitled to study and work in an atmosphere free from illegal discrimination. Florida International University's equal opportunity policy prohibits discrimination against students and employees on the basis of their race, color, creed, age, disability, sex (including sexual harassment), religion, marital status, national origin, or sexual orientation. Under the policy, it does not matter whether the discrimination was intended or not; the focus is on whether students or employees have been treated differently or subjected to intimidation, or a hostile or offensive environment as a result of their belonging to a protected class or having a protected status. Sexual harassment includes unwelcome physical contact of a sexual nature, overt or implied threats to induce performance of sexual favors, verbal harassment, use of sexually suggestive terms, or display or posting of sexually offensive pictures.

Any employee, applicant, or student who believes that he or she may be a victim of unlawful discrimination may file a complaint with the Office of Equal Opportunity Programs, PC 215, University Park, (305) 348-2785.

Administration & Staff

OFFICE OF THE PRESIDENT

President **Modesto A. Maidique**
Director, Office of Internal Audit **Ted Guba**

ACADEMIC AFFAIRS

Provost and Executive Vice President, Academic Affairs **Ronald M. Berkman**
Vice President, Research **George Walker**
Vice President, Student Affairs and Undergraduate Education **Rosa L. Jones**
Vice President, Information Technology and Chief Information Officer **Min Yao**
Vice President, Enrollment Management **Corinne Webb**
Vice President, Academic Affairs **Douglas Wartzok**
Associate Vice President, Planning and Institutional Effectiveness **Jeffery Gonzalez**
Vice Provost, International Studies **A. Douglas Kincaid**
Vice Provost, Academic Personnel **Kenneth Johnson**
Vice Provost, Program Review and Assessment **Kyle Perkins**
Associate Vice President, Academic Affairs **Tonja Moore**
Associate Vice President, Undergraduate Education **Lidia V. Tuttle**

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Interim Dean, College of Arts and Sciences **Mark Szuchman**
Executive Dean, College of Business Administration **Joyce Elam**
Dean, College of Education **Luis Miron**
Executive Dean, College of Engineering and Computing **Vishwanath Prasad**
Dean, College of Nursing and Health Sciences **Divina Grossman**
Dean, College of Social Work, Justice, and Public Affairs **Ray Thomlison**
Interim Dean, Robert Stempel School of Public Health **Michele Ciccazzo**
Dean, Honors College **Leslie Northup**
Dean, School of Hospitality and Tourism Management **Joseph West**
Dean, School of Journalism and Mass Communication **Lillian Lodge Kopenhaver**
Dean, College of Law **Leonard P. Strickman**
Dean, University Graduate School **George Walker**

LIBRARIES

Dean **Laura Probst**
Executive Associate Director **Antonie B. Downs**
Associate Director for Collection Development **Charles "Tony" Schwartz**
Associate Director, Services and Systems **Sherry Carrillo**

CENTERS AND INSTITUTES

Director, Center for Accounting, Auditing and Tax Studies **TBA**
Director, Center for Administration of Justice **Luis Salas**
Director, Center for Diversity in Engineering **Gustavo Roig**
Director, Institute for Asian Studies **Steven Heine**
Director, Center for Advanced Distributed Systems Engineering **Xudong He**
Director, Center for Advanced Technology Education **Malek Adjouadi**
Director, Center for International Business Education and Research **Mary Ann Von Glinow**
Director, Institute for Children and Families at Risk **Barbara Thomlinson**
Director, Cuban Research Institute **Damian Fernandez**
Director, High Performance Database Research Center **Naphtali Rishe**
Director, Center for Economic Research and Education **Jorge Salazar-Carrillo**
Director, Intercultural Institute for Educational Initiatives **Lynn Ilon**
Director, Center for Internet Augmented Research and Assessment **Julio Ibarra**
Director, Florida Center for Analytical Electron Microscopy **Gautam Sen**
Director, English Language Institute **Luis Sanchez**
Director, Knight Ridder Center for Excellence in Management **Edward Glab**
Director, Future Aerospace Science and Technology Center for Cryoelectronics **Grover Larkins Jr.**
Director, Florida -Caribbean Institute **TBA**
Director, Florida -Mexico Institute **TBA**
Director, Center for Health Research and Policy **H. Virginia McCoy**
Executive Director, FIU Applied Research Center **TBA**
Director, Infant Development Center **Lorraine E. Bahrick**
Director, International Forensic Research Institute **Kenneth Furton**
Director, Institute for Hospitality and Tourism Education and Research **Joan S. Remington**
Director, Intercultural Dance and Music Institute **Andrea Mantell-Seidel**
Director, International Hurricane Research Center **Stephen P. Leatherman**
Director, International Media Center **John Virtue**
Director, Institute for Public Opinion Research **Hugh Gladwin**
Director, Institute for Judaic and Near Eastern Studies **Steven Heine**

Director, Center for Labor Research and Studies **Dawn Addy**
Director, Latin American and Caribbean Center **TBA**
Director, Ryder Center for Supply Chain Management **Walfried M. Lassar**
Director, Engineering Manufacturing Center **Shih-Ming Lee**
Director, Metropolitan Center **Dario Moreno**
Director, National Policy and Resource Center on Nutrition and Aging **Nancy S. Wellman**
Executive Director, Eugenio Pino Global Entrepreneurship Center **Alan Carsrud**
Director, Professional Development Center **Debra Danker Sandler**
Director, Child and Family Psychosocial Research Center **Wendy K. Silverman**
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Director, Jack D. Gordon Institute for Public Policy and Citizenship Studies **John F. Stack**
Director, Jerome Bain Real Estate Institute **John S. Zdanowicz**
Director, Southeast Environmental Research Center **Rudolf Jaffé**
Director, Center for the Study of Matter at Extreme Conditions **Surendra K. Saxena**
Director, Summit of the Americas Center **Carl Cira**
Director, Telecommunications and Information Technology Institute **Niki Pissinou**
Director, Center for Transnational and Comparative Studies **Sarah Mahler**
Director, Lehman Transportation Research Center **L. David Shen**
Executive Director, Center for Urban Education and Innovation **Lisa Delpit**
Director, Women's Studies Center **Suzanna Rose**

MUSEUMS

Interim Director, Patricia and Phillip Frost Art Museum **Martha de la Torre**
Director, Wolfsonian Museum **Cathy Leff**

Biscayne Bay Campus

Vice Provost **Damian Fernandez**

Business and Finance

Chief Financial Officer & Senior Vice President of Human Resources **Vivian Sanchez**
University Treasurer **TBA**
Controller **James Bond**
Associate Director, Purchasing Services **Orlando Valdes**

Administration

Vice President **TBA**
Inspector General, Internal Audit **Ted Guba**
Director, Business Services **Felicia Townsend**
Director, Parking and Transportation **Bill Foster**
Executive Director, Athletics Association **Joe Velasco**
Associate Vice President, Financial Services **Alexander Duque**
Associate Vice President, Environmental Health and Safety **Jennifer Mwaisela**
Director, Public Safety **Bill King**
Associate Vice President, Facilities Management **Victor Citarella**
Senior Director, Facilities **Nick DiCiacco**
Director, Facilities Planning **Bob Griffith**
Director, Facilities Operations Analysis **Jose Rodriguez**
Director, Facilities Construction **Sylvia Berenguer**
Associate Director, Financial Services **Edward Brozic**

Continuing and Professional Studies

Executive Director, Continuing and Professional Studies **Mercedes Martha Ponce**
Director, Legal Studies Institute and Multicultural Training Institute **Ana Crucet**
Director, Osher Lifelong Learning Institute **Susan Jay**
Director, Kovens Conference Center **Jean Harris**
Director, Operations Student and Financial Services **Dwain Keddo**
Associate Director, Corporate Relations and Business Development **TBA**
Acting Director, Marketing and PR Services **Laura Herring**

Governmental Relations

Vice President, Governmental Relations **Stephen Sauls**
Director, State Relations **Michelle L. Palacio**
Director, Federal Relations **Susan Moya**
Associate Vice President, Education Policy and Budget **Deborah Gallay**

Human Resources

Chief Financial Officer & Senior Vice President of Human Resources **Vivian Sanchez**
Senior Director, Employee & Labor Relations and Work Force Recruitment **Joann Cuesta-Gomez**
Senior Director, Organization Development and Learning **Shanequa Fleming**
Senior Director, Payroll and Employee Records **Carlos Flores**
Director, Benefits Administration **Silvia Covas**
Director, Equal Opportunity Programs **Bennie Osborne**
Director, Compensation Administration **Maria Mazorra**
Associate Director of Human Resources System and IT **Serafin Alorro**
Associate Director, Biscayne Bay Campus Operations **Trudy Fernandez**

Intercollegiate Athletics

Director of Athletics **Pete Garcia**
Associate Athletic Director for External Operations **Gregg Fort**
Head Baseball Coach **Henry "Turtle" Thomas**
Head Football Coach **Mario Cristobal**
Head Men's Basketball Coach **Sergio Rouco**
Head Women's Basketball Coach **Cindy Russo**

Head Cross Country/Track and Field Coach **Steve Rubin**
Head Women's Golf Coach **Joe Vogel**
Head Men's Soccer Coach **Munga Eketebi**
Head Women's Soccer Coach **Thomas Chestnutt**
Head Women's Softball Coach **Beth McClendon**
Head Women's Tennis Coach **TBA**
Head Volleyball Coach **Danijela Tomic**
Head Swimming & Diving Coach **Noemi Zaharia**
Associate Athletic Director, Game Management Operations **Mike Garrity**
Director, Athletics Support Services **Shirelle Jackson**
Director, Compliance **Jody Smith**
Assistant Director, Compliance **Mitchell Isle**
Senor Associate Athletic Director, Internal Operations **Julie Berg**
Assistant Athletic Director, Facilities and Operations **TBA**
Assistant Athletic Director for Student-Athlete Development **A.C. Tellison**
Assistant Athletic Director/Media Relations **Rich Kelch**
Corporate Sponsorships/Marketing **Jim D'Arecca**
Executive Director, Athletic Association **Joe Velasco**
Head Athletic Trainer **Gigi Garcia**
Manager, Business Office **Susan Sanchez**
Cheerleading Coach, **Maria George**
Golden Dazzlers Head Coach **Brenda Popritkin**
Head Strength Coach **Lou DeNeen**

Pines Center

Director **Diana Little**
Assistant Director **Isabel Morales**

Student Affairs

Vice President **Rosa L. Jones**
Associate Vice President **Helen Ellison**
Associate Vice President and University Ombudsman **Larry Lunsford**
Assistant Vice President, Biscayne Bay Campus **Cathy Akens**
Director, Budget and Personnel **Matilde Gramling**
Director Title V, Assessment and Evaluation **Consuelo Boronat**
Director, Career Services **Lenroy Jones**
Director, Children's Creative Learning Center **Nancy J. Ponn**
Director, Campus Life **Charlie Andrews**
Interim Director, Disability Resource Center **Amanda Niguidula**
Executive Director, Graham University Center **Ruth A. Hamilton**
Director, Grants and Research **E. George Simms**
Director, Victim Advocacy Center **Sharon Aaron**
Executive Director, University Health Services **Robert Dollinger**
Executive Director, Operations and Auxiliary Services **James Wassenaar, Jr.**
Director, International Student and Scholar Services **Ana Sippin**
Senior Director, Multicultural Programs And Services **Robert Coatie**
Director, Campus Life Recreation and Biscayne Bay Campus **Craig Cunningham**
Orientation,
Senior Director, Wolfe University Center, Biscayne Bay Campus **Gregory A. Olson**
Director, Upward Bound **Sofia Santiesteban**
Director, Student Support Services **Dorret Sawyers**
Director, Counseling and Psychological Services Center **Cheryl Nowell**
Director, Student Conduct and Confilct Resolution **Karen Dlhosh**
Associate Director, Women's Center **Suzanne Onorato**
Director, Office of Employee Assistance **Kate Kominars**
Director, University Housing and Residential Life, Assistant Ombudsperson **Joseph Mattachione**
Director, Center for Leadership and Service **Beverly Dalrymple**
Director, Student Media **Robert Jaross**
Director, Recreation Services **Rob Frye**

University Advancement

Interim Vice President, University Advancement **Sandra Gonzalez-Levy**
Vice President, University and Community Relations **Sandra Gonzalez-Levy**
Associate Vice President and Executive Director, Alumni Relations **Bill Draughon**
Associate Vice President, Marketing-External Relations **Terry Witherell**
Director, Community Relations **Josefina Cagigal**
Director, Operations **Juan Cueto**
Director, Publications **TBA**
Director, Media Relations, **Maydel Santana-Bravo**
Director, Donor Relations **Laura Padron**
Director, Research and Prospect Management **TBA**
Director, Corporate Relations **Lori-Ann Cox**

Division of Information Technology

Office of the CIO
Vice President & CIO **Min Yao**

IT Business Services
Associate Director, Business Services **Martha Castiello**
Assistant Director, Business Services **Candace Reese**

University Libraries
Dean, University Libraries **Laura Probst**

FIU Information Technology Security Office
FIU IT Security Officer **Cheryl Granto**

Center for Internet Augmented Research & Assessment
Executive Director, CIARA/AMPATH **Julio Ibarra**

University Technology Services (UTS)
Director, UTS – Administrative Software Unit **Robert Grillo**
Director, UTS – Enterprise Technology Support Services **TBA**
Interim Assistant Director, Studio of Digital Arts **TBA**
Associate Director, UTS - Customer Relations & Communications **TBA**

Academic Units

College of Architecture and The Arts
UP (305) 348-3181
Email: delauzs@fiu.edu
http://www.fiu.edu/~soa/index.htm

School of Music
UP (305) 348-2896
BBC (305) 919-5859
Email: music@fiu.edu
http://www.fiu.edu/~music

College of Arts and Sciences
UP (305) 348-2864
BBC (305) 919-5859
Pines (954) 438-8602
Email: casdean@fiu.edu
http://www.fiu.edu/orgs/casdean/

College of Business Administration
UP (305) 348-2751
BBC (305) 919-5870
Pines (954) 438-8601
Email: online@fiu.edu
http://cba.fiu.edu/

Alvah H. Chapman, Jr. Graduate School of Business
UP (305) 348-3880
Email: chapman@fiu.edu
http://cba.fiu.edu

School of Accounting
UP (305) 348-2581
BBC (305) 919-5780

Continuing and Professional Studies (CAPS)
UP (305) 348-5669
BBC (305) 919-5669
Email: caps@fiu.edu
http://www.caps.fiu.edu

College of Education
UP (305) 348-2768
Pines (305) 438-8609
Email: coeadvis@fiu.edu
http://education.fiu.edu

College of Engineering and Computing
UP (305) 348-2522
Pines (954) 438-8609
Email: all@eng.fiu.edu
www.eng.fiu.edu

School of Computing and Information Sciences
UP (305) 348-2744
BBC (305) 919-5859
Email: info-undergrad@cis.fiu.edu
http://www.cis.fiu.edu

College of Nursing and Health Sciences
UP (305) 348-5840
BBC (305) 919-5840
Pines (954) 438-8602
http://chua.fiu.edu/

Health Sciences
UP (305) 348-3446
Email: anderson@fiu.edu
http://schoolofhealth.fiu.edu/

Nursing
UP (305) 348-7703
BBC (305) 919-4421
http://www.nursing.fiu.edu/

College of Social Work, Justice, and Public Affairs

School of Social Work
UP (305) 348-5880
BBC (305) 919-5880
Pines (954) 438-8601
http://chua2.fiu.edu/socialwork/

School of Public Administration
UP (305) 348-5890
http://chua2.fiu.edu/spm/

Honors College
UP (305)348-4100
BBC (305) 919-5597
Email: honors@fiu.edu
http://www.fiu.edu/~honors/

Robert Stempel School of Public Health
UP (305) 348-4903
http://publichealth.fiu.edu

School of Hospitality and Tourism Management
BBC (305) 919-4500
http://hospitality.fiu.edu
Email: hospitality@fiu.edu

School of Journalism and Mass Communication
BBC (305) 919-5625
Email: sjmc@fiu.edu
http://jmc.fiu.edu/sjmc/

College of Law
UP (305) 348-8006
Email: lawadmit@fiu.edu
http://www.fiu.edu/law/

University Graduate School
UP (305) 348-2455
Email: ugs@fiu.edu
http://gradschool.fiu.edu

Select Support Services Phone & Web Addresses

ACADEMIC ADVISING (UNDERGRADUATE)
http://www.fiu.edu/~advising/
UP (305) 348-2892
BBC (305) 919-5754

ADMISSIONS
http://www.fiu.edu/~admiss/
UP (305) 348-2363
BBC (305) 919-5760
Pines (954) 438-8600

ART MUSEUM (FROST)
http://www.fiu.edu/~museum/
UP (305) 348-2890

ATHLETICS
http://www.fiusports.com/index.php
UP (305) 348-2756

BOOKSTORE
http://fiu.bkstore.com/
UP (305) 348-2691
BBC (305) 919-5580

BURSAR / CASHIERS
http://sis.fiu.edu/
UP (305) 348-2126
BBC (305) 919-5540

CAMPUS LIFE
http://www.fiu.edu/~camplife/
UP (305) 348-2138
BBC (305) 919-5804

CAMPUS RECREATION
http://www.fiu.edu/~camprec/
UP (305) 348-2575
BBC (305) 919-4571

CAREER SERVICES
http://www.fiu.edu/~career/
UP (305) 348-2423
BBC (305) 919-5770

COPY CENTER
http://obs.fiu.edu/copy_center.htm
UP (305) 348-6565
BBC (305) 919-5660

COUNSELING AND PSYCHOLOGICAL SERVICES CENTER
http://www.fiu.edu/~psychser/
UP (305) 348-2434
BBC (305) 919-5305

CREDIT UNION
http://www.ucumiami.org/
UP (786) 425-5039
BBC (786) 425-5000

FINANCIAL AID
http://www.fiu.edu/~finaid/
UP (305) 348-7272
BBC (305) 919-5750

GRADUATION
http://www.fiu.edu/orgs/registrar/comm.html
UP (305) 348-2341
BBC (305) 919-5750

UNIVERSITY HEALTH SERVICES
http://www.fiu.edu/~health/
UP (305) 348- 2401
BBC (305) 919-5620

HOUSING
http://www.fiu.edu/~housing/
UP (305) 348-4190
BBC (305) 919-5587

LIBRARY
http://library.fiu.edu/
UP (305) 348-2454
BBC (305) 919-5726
Pines (954) 438-8608

PARKING AND TRAFFIC
http://www.parking.fiu.edu/
UP (305) 348-3615
BBC (305) 919-5558

PUBLIC SAFETY
http://www.fiu.edu/~univpol/
UP (305) 348-2626
BBC (305) 919-5559

REGISTRAR
http://www.fiu.edu/~register/
UP (305) 348-2320
BBC (305) 919-5750
Pines (954) 438-8600

STUDENT GOVERNMENT ASSOCIATION
http://www.fiu.edu/~sga/
UP (305) 348-2121
BBC (305) 919-5680

UNIVERSITY LEARNING CENTER
http://learningcenter.fiu.edu
UP (305) 348-2180
BBC (305) 919-5927

WOLFSONIAN MUSEUM– FIU
http://www.wolfsonian.org
1001 Washington Avenue
Miami Beach, Florida 33139
(305) 531-1001

Centers & Institutes

Biomedical Engineering Institute
URL: http://www.bme.fiu.edu/

Center for Accounting, Auditing, and Tax Studies
URL: http://cba.fiu.edu/web/caats/index.htm

Center for Administration of Justice
URL: http://caj.fiu.edu/

Center for Advanced Distributed Systems Engineering
URL: http://cadse.cs.fiu.edu/

Center for Advanced Technology and Education
URL: http://www.cate.fiu.edu/

Center for Diversity in Engineering
URL: http://www.eng.fiu.edu/cde

Center for Economic Research and Education
Phone: 348-3283

Center for Ethnobiology and Natural Products
URL: www.fiu.edu/~cenap

Center for Health Research & Policy
Phone: 348-4903

Center for International Business Education & Research
URL: http://www.fiu.edu/~ciber/

Center for Internet Augmented Research
URL: http://www.ciara.fiu.edu

Center for Labor Research and Studies
URL: http://www.fiu.edu/~clrs/

Center for the Study of Matter at Extreme Conditions
URL: http://www.fiu.edu/~saxenas/

Center for Transnational and Comparative Studies
URL: http://www.tcs-fiu.org/

Center for Urban Education and Innovation
URL: http://education.fiu.edu/urbaned/

Child and Family Psychosocial Research Center
URL: http://www.fiu.edu/~capp

Children's Creative Learning Center
URL: http://www.fiu.edu/~children/

Cuban Research Institute
URL: http://lacc.fiu.edu/cri/

Engineering Manufacturing Center
URL: http://www.eng.fiu.edu/MRC/

English Language Institute
URL: http://www.eli.fiu.edu/

Eugenio Pino Global Entrepreneurship Center
URL: http://www.entrepreneurship.fiu.edu

Florida - Caribbean Institute
URL: http://lacc.fiu.edu/fci/

Florida Center for Analytical Electron Microscopy
URL: http://www.fiu.edu/~emlab/

Florida - Mexico Institute
URL: http://lacc.fiu.edu/fmi/

Future Aerospace Science and Technology Center for Cryoelectronics
URL: http://www.eng.fiu.edu/FAST/

High Performance Database Research Center
URL: http://hpdrc.cs.fiu.edu/

Infant Development Research Center
URL: http://infantlab.fiu.edu

Institute for Asian Studies
URL: http://www.fiu.edu/~asian/

Institute for Children and Families at Risk
URL: http://www.fiu.edu/~icfr

Institute for Hospitality & Tourism Education & Research
URL: http://hospitality.fiu.edu/ihter

Institute for Judaic & Near Eastern Studies
URL: http://www.fiu.edu/~jewstudi/index.html

Institute for Public Management and Community Services
URL: http://www.fiu.edu/~ipmcs/

Institute for Public Opinion Research
URL: http://www.fiu.edu/orgs/ipor/

Intercultural Dance & Music Institute
URL: http://lacc.fiu.edu/indami/

Intercultural Institute for Educational Initiatives
URL: http://www.fiu.edu/~iied/

International Forensic Research Institute
URL: http://www.fiu.edu/~ifri/

International Hurricane Research Center
URL: http://www.ihrc.fiu.edu/

International Media Center
URL: http://www.fiu.edu/~imc/

Jack D. Gordon Institute for Public Policy & Citizenship Studies
URL: http://www.fiu.edu/~ippcs/

Jerome Bain Real Estate Institute
URL: http://cba.fiu.edu/web/jerome/index.htm

Knight Ridder Center for Excellence in Management
Phone: 348-6332

Latin American and Caribbean Center
URL: http://lacc.fiu.edu/

Lehman Center for Transportation Research
URL: http://www.eng.fiu.edu/LCTR/

Metropolitan Center
URL: http://www.fiu.edu/~metcntr/

National Policy and Resource Center on Nutrition and Aging
URL: http://nutritionandaging.fiu.edu/

Patricia and Phillip Frost Art Museum
URL: http://www.fiu.edu/~museum/home.html

Professional Development Center
URL: http://www.fiu.edu/~pdc/

Southeast Environmental Research Center
URL: http://serc.fiu.edu/

Summit of the Americas Center
URL: http://americas.fiu.edu/

Telecommunications and Information Technology Institute
URL: http://www.it2.fiu.edu/

The Wolfsonian Museum
URL: http://www.wolfsonian.org/

Women's Studies Center
URL: http://www.fiu.edu/~wstudies/

Florida's Statewide Course Numbering System

FLORIDA'S STATEWIDE COURSE NUMBERING SYSTEM

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System (SCNS). This numbering system is used by all public postsecondary institutions in Florida and 31 participating non-public institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions. Students and administrators can use the online Statewide Course Numbering System to obtain course descriptions and specific information about course transfer between participating Florida institutions. This information is at the SCNS website at http://scns.fldoe.org.

Each participating institution controls the title, credit, and content of its own courses and recommends the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have a meaning in the Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "statewide course profiles."

THE COURSE PREFIX

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix to identify the course.

GENERAL RULE FOR COURSE EQUIVALENCIES

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between participating institutions that offer the course, with a few exceptions. (Exceptions are listed below).

For example, a survey course in social problems is offered by 34 different postsecondary institutions. Each institution uses "SYG_010" to identify its social problems course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, "SYG" means "Sociology, General," the century digit "0" represents "Entry-Level General Sociology," the decade digit "1" represents "Survey Course," and the unit digit "0" represents "Social Problems."

In science and other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one institution to another is guaranteed in cases where the course to be transferred is equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, SYG 1010 is offered at a community college. The same course is offered at a state university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university if the student transfers. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed that have not been designated as equivalent.

AUTHORITY FOR ACCEPTANCE OF EQUIVALENT COURSES

Section 1007.24(7), Florida Statutes, states:

Any student who transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the United States Department of Education and that participate in the statewide course numbering system shall be awarded credit by the receiving institution for courses satisfactorily completed by the student at the previous institutions. Credit shall be awarded if the courses are judged by the appropriate statewide course numbering system faculty committees representing school districts, public postsecondary educational institutions, and participating nonpublic postsecondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The Department of Education shall ensure that credits to be accepted by a receiving institution are generated in courses for which the faculty possess credentials that are comparable to those required by the accrediting association of the receiving institution. The award of credit may be limited to courses that are entered in the statewdie course numbering system. Credits awarded pursuant to this subsection shall satisfy institutional requirements on the same basis as credits awarded to native students.

EXCEPTIONS TO THE GENERAL RULE FOR EQUIVALENCY

The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution:

A. Courses not offered by the receiving institution
B. For courses at non-regionally accredited institutions, courses offered prior to the established transfer date of the course in question
C. Courses in the 900-999 series are not automatically transferable, and must be evaluated individually. These include such courses as Special Topics, Internships, Practica, Study Abroad, Thesis and Dissertations
D. College preparatory and vocational preparatory courses
E. Graduate courses
F. Internships, practica, clinical experiences and study abroad courses with numbers other than those ranging from 900-999
G. Applied courses in the performing arts (Art, Dance, Interior Design, Music, and Theatre) and skills courses in Criminal Justice are not guaranteed as transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to (**Name of Statewide Course Numbering System Institution Contact**) in the (**Office where Institution Contact may be located**) or the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling the Statewide Course Numbering System office at (850) 245-0427 or SunCom 205-0427 or via the internet at http://scns.fldoe.org.

Special Course Directory

In addition to the regular courses listed in the catalog*, special courses may be offered using the State Wide Course Numbering System. The following table provides and inventory of course numbers by course type.

		UNDERGRADUATE		GRADUATE		
COURSE TYPE	**COURSE NUMBER**	**LOWER**	**UPPER**	**POST BACC**	**MASTERS**	**DOCTORAL**
Directed Readings/Independent Study	-900 through –909	1--- or 2---	3--- or 4---	5---	6---	7---
Directed Independent Research	-910 through -919	XXXX	3--- or 4---	5---	6---	7---
Colloquiums/Symposiums/Workshops	-920 through -929	1--- or 2---	3--- or 4---	5---	6---	7---
Special Topics/Seminars	-930 through -939	1--- or 2---	3--- or 4---	5---	6---	7---
Internships/Practicum/Clinical						
Practice/Cooperative Education	-940 through -949	1--- or 2---	3--- or 4---	5---	6---	7---
Activities/Performances/Study Abroad	-950 through -959	1--- or 2---	3--- or 4---	5---	6---	7---
Preliminary/Comprehensive Examinations	-960 through -969	XXXX	XXXX	5---	6---	7---
Thesis/Thesis Defense	-970 through -979	XXXX	XXXX	XXXX	6---	XXXX
Dissertation/Dissertation Defense	-980 through -989	XXXX	XXXX	XXXX	XXXX	7---
Experimental Courses/Reserved for Special Institutional Purposes	-990 through-999	1--- or 2---	3--- or 4---	5---	6---	7---

*** FIU is in the process of re-numbering all special courses to comply with the State Wide Course Numbering sequence above. Therefore, some of the special courses listed in the catalog may change.**

FLORIDA INTERNATIONAL UNIVERSITY

COLLEGE OF

architecture and the arts

College of Architecture and The Arts

Dean **Juan Antonio Bueno**
Associate Dean, Administration **David F. Bergwall**
Associate Dean, Academic Affairs **Kristine H. Burns**
Director, School of Architecture **Nathaniel Q. Belcher**
Director, School of Art and Art History **Juan A. Martínez**
Director, School of Music **Kathleen Wilson**
Director, School of Theatre, Dance and Speech Communication **Lesley-Ann Timlick**
Interim Director, The Patricia & Phillip Frost Art Museum **Marta de la Torre**

The College of Architecture and The Arts is comprised of the School of Architecture, School of Art and Art History, School of Music, School of Theatre, Dance and Speech Communication, and The Patricia & Phillip Frost Art Museum. The dynamics among the five different units make the college unique with programs that focus on art, design, and performance. The college embraces the visual and performing arts as well as design, and occupies a unique position in South Florida where one can prepare for a career in architecture or the arts within a major research university. Instruction in the college is enriched by distinguished faculty of artists, designers, and performers who add dimensions of applicable experience, current issues, and ongoing research to the traditional concepts of disciplines and professions within the college.

The college promotes exploration, discovery, and innovation among its different programs and is strongly committed to interdisciplinary education breaking new ground in art, design and performance. Its diverse programs emphasize urban engagement and are informed by current thinking and new technologies.The college is devoted to the value of the human mind and its creative spirit in the pursuit of knowledge and the cultivation of the imagination, intellectual curiosity, and artistic expression in our region and the world.

Developing connections with a wide range of programs and resources in the university, the college is dedicated to being engaged as a leader in design as well as in the performing arts education and research in South Florida, the nation, and neighboring communities. Collaborations with Fairchild Tropical Botanic Garden, the Wolfonsian-FIU and the Università degli Studi di Genova offer students the opportunity to expand their ingenuity with a variety of resources.

We continue to extend the traditional boundaries of education to meet the contemporary challenges of a global economy with the collaboration of the schools and the museum that produce a remarkable rich environment for study. The fusion of essential disciplines with applied professions in the college provides both depth and liberty in learning. In the fields of architecture and art, the major emphases are on creative processes and studio work with a variety of supportive lectures and seminar programs.

In art history, the emphasis is on scholarly study of the arts through time; lectures, seminars, and independent research are conducted on campus and in museums and libraries throughout the South Florida area. Music emphasizes skills and knowledge that are fundamental to the entire discipline: music theory, music history, performance, aural and keyboard training, orchestration, composition, conducting, and ensemble participation. Theatre majors study the arts that contribute to theatre production—acting, costuming, directing, design, playwrighting, and theatre administration. The dance program provides academic and artistic training in the study of expressive human movement, and seeks to foster the creative and critical thinking skills with an innovative curriculum that focuses on the vitality of dance. The speech communication program services various majors as course requirements and electives, and emphasizes practical communication skills grounded in theoretical bases. Students develop verbal, nonverbal, organizational and critical thinking skills that enhance their personal and professional lives.

Admission to the College of Architecture and The Arts is selective and competitive. For information on the College of Architecture and The Arts, see http://carta.fiu.edu.

Undergraduate Programs

The college offers academic programs leading to undergraduate degrees in Architecture, Interior Design, Landscape Architecture, Art, Art History, Music, Music Education, Theatre and Dance.

Certificate Programs

The college offers academic programs leading to graduate certificates in History and Theory of Architecture, and Landscape Architecture.

Minors

Minor programs of study are offered in art, art history, music composition (for music majors only), theatre, and dance.

Graduate Programs

The college offers academic programs leading to graduate degrees in Architecture, Interior Design, Landscape Architecture, Art, Music, and Music Education.
For more information, refer to the University Graduate Course Catalog.

School of Architecture

Nathaniel Q. Belcher, *Associate Professor and Director*
Marta Canavés, *Associate in Design and Chair, Landscape Architecture Department*
Adam M. Drisin, *Associate Professor and Chair, Architecture Department*
Janine King, *Associate Professor and Chair, Interior Design Department*

Philip Abbott, *Assistant Professor*
Alfredo Andia, *Associate Professor*
Juan Antonio Bueno, *Professor*
Claudia Busch, *Associate in Design*
Jaime Canavés, *Associate Professor*
Jason R. Chandler, *Assistant Professor*
Eric Goldemberg, *Assistant Professor*
Gisela López-Mata, *Associate Professor*
Marilys R. Nepomechie, *Associate Professor*
Ebru Ozer, *Assistant Professor*
Nicolás Quintana, *Scholar in Architecture and Urbanism*
Gray Read, *Assistant Professor*
David Rifkind, *Assistant Professor*
Camilo Rosales, *Associate Professor*
Roberto Rovira, *Assistant Professor*
John Stuart, *Associate Professor*

The School of Architecture is dedicated to advancing the professions of architecture, interior design and landscape architecture In keeping with the nature of these professions, the programs are taught in an interdisciplinary manner, taking full advantage of the resources and areas of expertise offered by each. The school offers three undergraduate degree programs, a Bachelor of Arts in Architecture, a Bachelor of Interior Design, and a Bachelor of Landscape Architecture, and six graduate degree programs, a Master of Architecture, a Master of Arts in Architecture, a Master of Interior Design, a Master of Arts in Interior Design, a Master of Landscape Architecture, and a Master of Arts in Landscape Architecture. (See Graduate Catalog for descriptions). The School maintains close ties with architecture, interior design and landscape architecture professionals. Professional advisory boards regularly review the curriculum to maintain program relevance.

Students applying to the School should plan for the financial aspects of a design education. This includes the costs of computers, software, travel and field trips, tools and equipment, and modeling supplies. Students must also have continuing access to a laptop computer through purchase, lease or other arrangements. All disciplines in the School of Architecture have optional opportunities for students to participate in a study abroad center in Genoa, Italy. For further information contact the School.

Freshman Admissions

Applicants to the School of Architecture must apply to both the University and to the School. Admission to the School of Architecture is competitive and is not automatically guaranteed. Admission will be offered on a space available basis to those applicants judged by the Faculty Admissions Committee to have the greatest potential for successful completion of the program.

Upper Division Admissions

Students already enrolled in the School of Architecture Lower Division who are seeking admission to the Upper Division majors of the School of Architecture must have a minimum cumulative GPA in all University work of 2.50, have completed a minimum of 60 credits, have completed the CLAST requirement, have completed design studio courses 1 through 4 with a grade of 'C' or better, and be judged by the Faculty Admissions Committee to have passed a competitive portfolio review. All applicants will have their credentials reviewed prior to full admission into the program. All applicants for admission to the Upper Division must submit a portfolio for review by the established deadlines. Only grades of 'C' or higher (2.0 on a 4.0 grading scale) are accepted for transfer of applicable prerequisite and core courses from other institutions. No grade below a 'C' will be accepted for graduation in required courses or required electives.

Native Student Admissions

FIU students who wish to change majors into Architecture, Interior Design, or Landscape Architecture should check individual program requirements and be advised by the School's undergraduate advisors well in advance of entry or transfer into a given program.

Transfer Student Admissions

Applicants transferring to FIU from community colleges or other universities must apply to both the University and to the School. Applicants to each major must meet the criteria set for Upper Division established for the major.

All applicants considering majors within the School of Architecture must meet the University's general admission requirements. The School's academic programs require specific prerequisite preparation prior to enrollment in certain courses. Students should check individual program requirements and be advised by the School well in advance of entry or transfer into a given program.

Application Deadlines

The School of Architecture admits students once a year. Once admitted, students begin their course of study in the Fall semester. The deadline for submitting applications and portfolios for review is February 1. Notice of admission actions will normally be mailed by April 1.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admission, and Registration and Records.

Student Work

Student work submitted to the School in satisfaction of course or degree requirements becomes the physical property of the School. However, students retain all rights to the intellectual property of such work. This work may include papers, drawings, models, and other materials. The School assumes no responsibility for safeguarding such materials. At its discretion, the School may retain, return, or discard such materials. The School will not normally discard the materials of current students without giving them a chance to reclaim them.

Students must petition the faculty of the School in writing for any deviation from the established policies. The faculty will decide on the cases on an individual basis.

Study Abroad

Study abroad is an important component within all degree programs in the School of Architecture. Our study abroad center is located in Genoa, Italy. In Italy, our Architecture, Interior Design, and Landscape Architecture students are afforded an opportunity to study those artistic, architectural, landscape and interior spaces and artifacts that have long been acknowledged for their exceptional and enduring value to our design cultures. The Genoa center is ideally situated in the historic center of the city in a newly renovated former convent dating from the 13th century.

Bachelor of Arts in Architecture

Degree Program Hours: 128

This pre-professional, four-year program provides the student with a solid base of multi-disciplinary knowledge in the field of architecture in preparation for the Master of Architecture professional degree. The program is characterized by a broad interdisciplinary framework, with emphasis placed upon five thematic areas; architectural design, history/theory, building and digital technologies, and ethics/professional practice. The goal of the educational experience is to develop synthetic thought and design processes using creative problem solving and critical thinking. The program is committed to educating students to form independent design judgments grounded in the larger contexts of intellectual inquiry and the general pursuit of knowledge. The degree program consists of a two year Lower Division and a two year Upper Division. The Lower Division classes and studios focus on the interdisciplinary study of design, graphic communication, history/theory and technologies. The Upper Division focuses upon the comprehensive knowledge and professional skills required for entry to graduate education and a career in the discipline of architecture. With alumni and alumnae of the program continuing their studies at many of the most competitive graduate school programs in the country, the program remains committed to design excellence by providing its students an unsurpassed undergraduate pre-professional education in architectural studies.

Lower Division Preparation

Students should enroll in lower division design courses the first semester they attend FIU or their progress through the curriculum will be delayed. Seats in lower division design courses are limited and cannot be guaranteed to all students.

Undergraduates admitted with fewer than 36 semester hours must meet all the University Lower Division core requirements.

Lower Division Common Core (34)

ARC 1001	Introduction to Design	3
ARC 1131	Design Graphics 1	3
ARC 1132	Design Graphics 2	3
ARC 1301	Design Studio 1	4
ARC 1302	Design Studio 2	4
ARC 1461	Methods and Materials of Construction I	3
ARC 2303	Design Studio 3	4
ARC 2304	Design Studio 4	4
ARC 2580	Structures and Systems	3
ARC 2701	History of Design from Antiquity to the Middle Ages (H)	3
ARC 2702	History of Design from the Renaissance to the XIX Century	3

(H) May fulfill humanities requirements. Check with School Advisor.

Graduation Requirements

To graduate, students must complete all Core and General Education requirements for undergraduates as established by the university.

Bachelor of Arts in Architecture Upper Division students have the option of spending a semester abroad during their junior year at the architectural program in Genoa, Italy.

All Upper Division students must complete a minimum of 47 semester hours to graduate, which include the following Core Requirements or their equivalent:

Upper Division Program (56)

Major Requirements

ARC 3243	Design Theories	3
ARC 3463	Methods and Materials of Construction II	3
ARC 4058	Computers Applications in Architecture	3
ARC 4324	Architectural Design 5	4
ARC 4335	Architectural Design 6	4
ARC 4342	Architectural Design 7	4
ARC 4343	Architectural Design 8	4
ARC 4553	Structural Design	4
ARC 4783	History of Design from the XIX Century to Present	3
BCN 4561C	Environmental Controls	3
BCN 4564	Environmental Controls in Bldgs. 2	3

Upper Divison Electives (18)

May be selected with an advisor to assure degree requirements and program objectives.

HUM 4392	Human Concerns	3
	or	
PHI 3601	Ethics	3
	or	
PHI 3638	Contemp Ethical Issues	3

ARH 3000 or 4000 Level Course	3
History/Theory Elective	6
School of Architecture (SOA) Elective	3
Open Electives 3000 or 4000 Level Course	3

Bachelor of Interior Design

Degree Program Hours: 120

The four-year interior design program prepares students for a professional career in interior design. The studio based curriculum is focused on preparing well-rounded design professionals capable of making rigorous inquiries, informed judgements, and creative explorations in the complex problem solving situations common to interior design. Our graduates are instructed in the technical, managerial, and theoretical aspects of interior design. Our goal is to prepare students who can thoughtfully design successful commercial, residental and institutional interiors.

This exciting program has a strong emphasis on interior architecture. Our graduates are well prepared to think critically about the diverse roles of interior design and about improving the quality of life for many different people. With alumni of the program working in some of the leading interior design and architecture firms in the

country, the program remains committed to design excellence by providing its students a comprehensive interior design education.

The degree program consists of a two year Lower Division foundation followed by a two year Upper Division professional progam. The Lower Division classes and studios focus on the interdisciplinary study of design, graphic communication, history/theory and technology. The Upper Division focuses upon professional knowledge and skills required for entry into the interior design profession or into graduate education.

Professional Accreditation

The Bachelor of Interior Design Degree is accredited by the Council for Interior Design Accreditation.

Lower Division Preparation

Students should enroll in Lower Division design courses the first semester they attend FIU or their progress through the curriculum will be prolonged. Seats in Lower Division design courses are limited and can not be guaranteed to all students.

Undergraduates admitted with fewer than 36 semester hours must meet all of the University Lower Division Core Requirements.

Lower Division Common Core (31)

ARC 1001	Introduction to Design*	3
ARC 1131	Design Graphics I	3
ARC 1132	Design Graphics II	3
ARC 1301	Design Studio 1	4
ARC 1302	Design Studio 2	4
ARC 1461	Materials and Methods of Design	3
ARC 2303	Design Studio 3	4
ARC 2304	Design Studio 4	4
ARC 2580	Structures and Systems	3
ARC 2701	History of Design from Antiquity to the Middle Ages (H)	3
ARC 2702	History of Design from the Renaissance to the XIX Century	3

*Optional

(H) May fulfill humanities requirement (check with School Advisor)

Graduation Requirements

To graduate, students must complete all Core and General Education requirements for undergraduates as established by the university.

All Upper Division students must complete a minimum of 47 semester hours to graduate, which include the following Core Requirements or their equivalent.

Upper Division Program (53)

IND 3215	Interior Design 5	4
IND 3216	Interior Design 6	4
IND 3130	History of Modern Interior Design	3
IND 3430C	Lighting Design	3
IND 3451C	Interior Design Construction Drawing 1	3
ARC 4270	Professional Office Practice	3
IND 3423C	Sources, Materials & Cost Estimating for Interiors	3
ARC 3243	Design Theories	3
ARC 4058	Computer Applications in Architecture	3
BCN 4561C	Environmental Controls I	3
IND 4225	Interior Design 7	4
IND 4226	Interior Design 8	4
IND 4943C	Programming	3
IND 4940	Interior Design Internship	3
IND 4455C	Advanced Construction Documents	3
IND 4311	Color Theory	3

(H) May fulfill humanities requirement (check with School Advisor)

Bachelor of Landscape Architecture

Degree Program Hours: 128

The Bachelor of Landscape Architecture focuses on the development of the basic knowledge, skills, and abilities appropriate to the practice of landscape architecture, with a special emphasis on tropical and sub-tropical landscapes. Our goal is to educate individuals who can serve and lead the community in the enhancement of the quality of life through the aesthetic, meaningful, and sustainable design of the physical environment.

Interdisciplinary education is part of the mission and goal of the School of Architecture and is a desired structure in national standards for undergraduate education. The program's Lower Division focuses on the interdisciplinary study of design, graphic communication, history/theory and technology. The Upper Division focuses upon professional knowledge and skills preparing students for entry into the landscape architecure profession or continuation into graduate education. Selected Upper Division courses will be offered as combined courses with the existing Graduate Program in Landscape Architecture. This interaction within the structure of the School provides a unique opportunity to strengthen the professional educational requirements of both the undergraduate and graduate students.

The Bachelor of Landscape Architecture degree prepares its graduates to embark on fulfilling careers with the necessary knowledge and competence to work in a broad range of environments and to advance the profession of landscape architecture.

Lower Division Preparation

Students should enroll in Lower Division design courses the first semester they attend FIU or their progress through the curriculum will be delayed. Seats in Lower Division courses are limited and can not be guaranteed to all students.

Undergraduate students admitted with fewer than 35 semester hours, must meet all the University Lower Division Core Requirements.

Lower Division Common Core (37)

ARC 1131	Design Graphics I	3
ARC 1132	Design Graphics II	3
ARC 1301	Design Studio 1	4
ARC 1302	Design Studio 2	4
ARC 1461	Materials and Methods of Design	3
ARC 2303	Design Studio 3	4
ARC 2034	Design Studio 4	4
ARC 2580	Structures and Systems	3
ARC 2701	History of Design from Antiquity to Middle Ages	3
ARC 2702	History of Design from the Renaissance to the XIX Century	3
ARC 4058	Computer Applications in Design	3

(H) May fulfill humanities requirements (check with School Advisor)

Graduation Requirements

To graduate, students must complete all Core and General Education requirements for undergraduates as established by the University.

All Upper Division students must complete a minimum of 47 semester hours to graduate, which include the following Core Requirements or their equivalent.

Upper Division Program (58)

LAA 3372L	Computer Applications in Landscape Architecture 1	3
LAA 3712	History of Landscape Architecture	3
LAA 3602	South Florida Landscapes	3
LAA 3802	Landscape Development	3
LAA 3420	Landscape Construction	3
LAA 3350C	Design 5	4
LAA 3354C	Design 6	4
LAA 3333	Site Analysis and Design	3
LAA 3232	Theory of Planting Design	3
LAA 4375C	Computer Modeling	3
LAA 4354C	Design 7	4
LAA 4355C	Design 8	4
LAA 4210	Professional Office Practice	3
LAA 4940	Internship	3

Upper Division Electives (12)

	School and Directed Electives	9
	Open Electives	3

Selected with an advisor to meet degree requirements and program objectives.

Certificate in Landscape Architecture

The Certificate in Landscape Architecture offers students the ability to explore the design, planning, and management of regional landscapes. This program is developed to serve undergraduate students within the School of Architecture and in related fields such as Environmental Science and Biological Sciences who would like to seek to expand their academic experience with this area of specialized study. Focused on landscape design and development, the certificate seeks to extend students' skills, knowledge, and critical thinking about the design, making, and managing of existing and built landscape environments. Students who wish to earn the Certificate in Landscape Architecture should contact a School of Architecture undergraduate advisor in advance of pursuing this course of study.

Certificate Requirements

Students earning this certificate must accumulate 18 credit hours with a satisfactory grade from the following list of available courses.

Program Requirements

LAA 3212	Landscape Documentation
LAA 3420	Landscape Construction
LAA 3602	South Florida Landscapes
LAA 3712	History of Landscape
LAA 3802	Landscape Development
LAA 5235	Theory of Landscape Architecture

Certificate in the History and Theory of Architecture

The School of Architecture offers a certificate in the history and theory of architecture to students currently enrolled in any of the school's programs at either the undergraduate or graduate level. In addition, motivated students in related areas of study throughout the university are permitted to pursue this certificate through written application to the Director of the Architecture Program.

The certificate involves course work in the history and theory of architecture. These courses examine the scope of ideas generated in the discipline in order to reveal and explain the production and reception of architecture. This certificate program focuses upon the historical and theoretical cicumstances within the discipline and considers the discipline of architecture through its distinct modes of thought and production and in relation to other spheres of cultural production such as art, technology and politics. By treating architecture as a historical and ideological production as well as a material production, the course work in this certificate program explores the important cultural forces that have conditioned the development and transformation of the discipline of architecture.

Certificate Requirements

The certificate requires 12 semester hours of course work in history and or theory. Courses must be selected from the following approved courses or by written petition to the Chair of the Architecture Program.

Program Requirements

ARC 2701	History of Design from Antiquity to the Middle Ages
ARC 2702	History of Design from the Renaissance to the XIX Century
ARC 3243	Introduction to Design Theories
ARC 4030	Film and the Architecture of Modern Life
ARC 4227	Gender and Architecture
ARC 4730	Culture and Art in Italy
ARC 4752	Architectural History of the Americas
ARC 4754	Asian and African Architecture
ARC 4755	Architecture of the City
ARC 4783	History of Design from the XIX Century to Present
ARC 4910	Research Methods
ARC 4799	Architecture and Landscape Architecture of South Florida
ARC 4905	Independent Study

Course Descriptions

Definition of Prefixes

ARC-Architecture; IND-Interior Design; LAA-Landscape Architecture

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ARC 1001 Introduction to Design (3). A practical introduction to the professional, technical, and aesthetic aspects of architecture, interior design, landscape architecture, and environmental and urban systems.

ARC 1131 Design Graphics I (3). An introduction to the development of graphic skills for the conception and communication of design ideas. Subject areas emphasize orthographic and presentation techniques. Corequisite: ARC 1301. (F)

ARC 1132 Design Graphics II (3). A continuation of Design Graphics I with the exploration of broader graphic tools of conceptual representation. Subject areas emphasize computer graphics and multiple media. Prerequisite: ARC 1131. Corequisite: ARC 1302 (S)

ARC 1171 Introduction to Computer Applications in Design 1 (3). A practical exploration to introductory computer applications appropriate to design disciplines.

ARC 1172 Introduction to Computer Applications in Design 2 (3). A continuation of introduction to computer applications in Design 1 with a broader exploration of introductory computer applications appropriate to design disciplines.

ARC 1190 Portfolio Design 1 (3). An introduction to creating, binding and reproducing graphic materials for presentation.

ARC 1191 Portfolio Design 2 (3). The second course in Portfolio Design. Students will develop their own portfolios using a variety of techniques. Prerequisite: Portfolio Design 1.

ARC 1213 Design Concepts 2 (3). A continuation of Design Concepts 1 with a broader exploration design principles, environmental and human factors, as well as the examination of design ideas.

ARC 1244 Introduction to Design 2 (3). A continuation of Introduction to Design 1 with broader explorations of professional, technical, and aesthetic aspects of architecture, interior design, landscape architecture, and urban systems. Prerequisite: ARC 1001.

ARC 1301 Design Studio 1 (4). An introduction to concepts, fundamental design elements, and systems of order that inform two and three-dimensional design. Corequisite: ARC 2701. (F)

ARC 1302 Design Studio 2 (4). A continuation of Design 1 (ARC 1301). An introduction to principles of proportion and scale with an emphasis on the relationship between the body and three dimensional space. The design process is emphasized. Prerequisites: ARC 1131, ARC 2701. Corequisite: ARC 2702. (S)

ARC 1461 Materials and Methods of Design (3). An introduction to materials and methods. In this course properties of materials and performance in a variety of light building, interior and environmental assemblies are explored. (F)

ARC 1930 Special Topics/Architectural Design I (4). An introduction to the basic perceptual, social, cultural, environmental and technical issues of architectural design. Basic architectural design projects.

ARC 2210 Design Concepts (3). Introduction to principles of design and perception, study of user's need for relationship with environmental and human factors. Examination of design ideas and their development. (S)

ARC 2303 Design Studio 3 (4). A continuation of Design Studio 2. Site, social, cultural and environmental issues are the generator for design projects with repetitive spatial and progammatic issues. Prerequisites: ARC 1302, ARC 1132, ARC 2702. Corequisites: ARC 1461, ARC 4058, ARC 4783. (F)

ARC 2304 Design Studio 4 (4). A continuation of Design Studio 3. Structure, material, design details, human factors and interior architecture are explored for small scale infill urban buildings project. Prerequisites: ARC 4058, ARC 4783. Corequisite: ARC 2580. (S)

ARC 2580 Structures and Systems (3). Introduction to principles of physical science for design problems of structures, spaces and ecological systems. Topics include structural systems and environmental systems of building and their natural surroundings.

ARC 2701 History of Design from Antiquity to the Middle Ages (3). Survey of architectural, interior, and landscape design from antiquity to the Middle Ages, including Western and non-Western traditions critical reading and writing course. Written work meets state composition requirement of 6,000 written words. (F)

ARC 2702 History of Design from the Renaissance to the XIX Century (3). Survey of architectural, interior, and landscape design from the Renaissance to the XIX century, including Western and non-Western traditions. Critical reading and writing course. (S)

ARC 2931 Architectural Design 2 (4). Proportioning systems for architecture students stressing the understanding of human proportions in a three-dimensional space research on modulating techniques and integration of interior and exterior spaces. Prerequisite: ARC 1930.

ARC 3031 Miami in Film (3). How the natural and built environment of South Florida is portrayed in films.

ARC 3057 Computer Graphics in Design (3). An intensive hands-on introduction to software for processing text and graphics, as it relates to the field of graphic design. Various computer applications in design. Prerequisite: CGS 2060.

ARC 3182 Design and the Virtual Environment (3). Implementation of real-time, three-dimensional virtual reality technology into existing and proposed design works.

ARC 3192 Design Presentation Graphics (3). Exploration of design presentation techniques and portfolio design through the use of digital photography, digital illustration, desk top publishing and web page.

ARC 3220 Case Studies in Architecture (3). This course explores the vast array of decisions that create the architectural experience of outstanding built works.

ARC 3243 Introduction to Design Theories (3). Introduction to the environmental parameters, morphological concepts and ideological principles that generate form and meaning in architecture and landscape architecture. Prerequisites: ARC 2701 and ARC 2702. (F)

ARC 3390 Urban Vertical Surface (3). The study of buildings' vertical surfaces will focus on analyzing the mechanisms of surfaces: wall section, the bay, frame, grid and their transformations.

ARC 3463 Materials and Methods of Construction II (3). A study of the types of construction and materials used in building interiors. How materials are properly installed and inspected, including the use of special equipment, in accordance to drawings, specifications, codes, standards, and agencies' recommendations. Prerequisite: ARC 1461. (S)

ARC 3741 Urban Architecture and the 20th Century (3). This course will examine debates on urban architecture surrounding the rise of Modernism in the 1920s and will

follow those lines of thought into current discussion of architectural design in cities.

ARC 3797 Hotels: Miami and La Habana at Mid-Century (3). A study of mid-century modern hotels constructed in Miami/Miami Beach, Florida and La Habana, Cuba, just prior to the Cuban revolution.

ARC 3905 Solar Decathalon (3). Research based course to develop the architectural and engineering concepts for the solar decathalon house.

ARC 3919 Architectural Research Methods (3). Survey of research methods applicable to the study of the cultural, spatial, material and aesthetic implications of architecture. The emphasis of the course is on involvement in original research. (F)

ARC 3932 Special Topics Design Studio (4). An architectural design studio based on a particular aspect of architectural design under the direction of appropriate faculty.

ARC 4030 Film and the Architecture of Modern Life (3). Critical overview of social and spatial implications of film on architecture and design over the course of the 20th century.

ARC 4058 Computer Applications in Architecture (3). Advanced study of computer software packages applicable to the architecture office environment, with particular emphasis on CAD software, graphics packages and desktop publishing. (F,S,SS)

ARC 4114 Special Projects (3). Will focus on the development of adequate drawing skills in relationship to the understanding of a building and a site through sketching, graphic analysis, measured drawings, rendering and presentation. The course consists of site visits and workshops.

ARC 4173 3D Computer Modeling (3). This course will explore computer modeling in architecture. Prerequisite: Program approval.

ARC 4174 Computer Rendering in Architecture (3). This course will explore three-dimensional rendering in architecture. Prerequisite: Program approval.

ARC 4183 Architecture and the Virtual Environment (3). Implementation of virtual reality technology in architectural representations of existing and proposed built environments for presentation and design research. Prerequisites: ARC 4173 and ARC 4174.

ARC 4185 Interactive Media (3). Presentation of digital images through an interactive and animated interface online or offline, as well as exploration of ideologies of interactive media.

ARC 4188 Visual Effects (3). Introduction of digital video and audio post-production techniques that add sound, text and visual effects to animations, as well as exploration of ideologies of digital animation.

ARC 4227 Gender and Architecture (3). A theoretical, visual and professional exploration of women's and men's roles, identities, and histories in public and private built environments.

ARC 4270C Professional Office Practice (3). Assignments in office administration, negotiation of contracts, fee structure, professional ethics, client and public relations. Business organization, procedure scheduling and task allocation within design professional practices. Prerequisite: Senior standing. (F)

ARC 4324 Architectural Design 5 (4). Integration of structure and construction techniques in the production of a small to mid-sized public project that incorporates site considerations, materials and structure. Prerequisites: ARC 2304, ARC 2580 and admission to the major. Corequisites: ARC 3243, BCN 4561. (F)

ARC 4335 Architectural Design 6 (4). This studio focuses on housing and related components including the repetitive spatial and structural elements, circulation and contextual considerations. Prerequisite: ARC 3243, BCN 4561. Corequisites: ARC 3463, ARC 4553. (S)

ARC 4342 Architectural Design 7 (4). A flexible framework for appropriate investigations of complex spatial, programmatic, contextual, constructional and ethical issues involved in design projects. Course content varies with instructor. Prerequisites: ARC 4553, ARC 3463. Corequisite: BCN 4564. (F)

ARC 4343 Architectural Design 8 (4). Architectural design explorations of site, building codes, community objectives will be undertaken through individual programming, process and design initiatives for a complex building project. Prerequisite: BCN 4564. (S)

ARC 4553 Structural Design (4). Exploration of structural specifications as outlined by appropriate codes and manuals to introduce structural analysis, loadings and structural elements commonly encountered in construction for architectural analysis and design. Prerequisites: ARC 2580 or BCN 2402, and PHY 2053, and MAC 2233 or MAC 1114 or MAC 2147. (SS)

ARC 4696 Basic Utilities and Housing (3). The study of the importance of basic utilities (such as roads, sewer and water supply systems) in housing planning and construction. A relative cost analysis. Health problems and sociological effects of lack of basic utilities. Innovative concepts to incorporate basic utilities to all housing projects in developing countries. Prerequisite: Permission of the instructor.

ARC 4730 Culture and Art in Italy (3). Course describes the evolution of culture and aesthetics and their immediate relationship with the creation of these works. Consists of site visits and class lectures.

ARC 4752 Architectural History of the Americas (3). Historical analysis of the development of built forms and styles in tropical and subtropical Americas. Investigating its socio-political and artistic context. Prerequisite: ARC 2701.

ARC 4754 Asian and African Architecture (3). Comprehensive study of architectural forms, styles, and construction techniques in Asia and Africa. Prerequisites: ARC 2701, ARC 2702, ARC 4783.

ARC 4755 The Architecture of the City (3). To analyze the layering that composes urban form and to offer a basis of historical and theoretical information in order to take advantage of particular experience. Different periods of urban history are presented.

ARC 4783 History of Design from the XIX Century to Present (3). Survey of architectural, interior, and landscape design from the XIX century to the present, including Western and non-Western traditions. Critical reading and writing course. (F)

ARC 4796 Social History of the Built Form (3). The art of urbanism, its roots in society, its techniques and aesthetics. Latest trends and theories. Real urbanism, the appropriate contemporary process to achieve the recovery of place in our society.

ARC 4799 The Architecture and Landscape Architecture of South Florida (3). Overview of the natural resources, cultural traditions and architectural precedents which have fomented the regionalist architecture and landscape architecture of South Florida. Prerequisite: Program approval. (SS)

ARC 4905 Independent Study (1-5). Specialized individual studies under supervision of faculty advisor. Consent of faculty advisor required. Prerequisite: Departmental approval. (F,S,SS)

ARC 4910 Research Methods (3). Survey of architectural research methods that use primary and secondary sources and materials to study historical and contemporary issues involved in the built environment. Prerequisite: ARC 2304. (F)

ARC 4940 Architecture Internship (3). Advanced issues in architecture practice learned through work experience with licensed professionals. Prerequisites: ARC 4270, ARC 3463, ARC 4553.

ARC 5035 Film and the Architecture of Modern Life (3). Critical overview of social and spatial implications of film on architecture and design over the course of the 20th century.

ARC 5036 Miami in Film (3). How the natural and built environment of South Florida is portrayed in films.

ARC 5037 Architecutre and Video Media (3). This course will examine intersections between architecture and video media from critical historical and contemporary perspectives.

ARC 5075 Formative Studio (6). Introduction to concept development, spatial expression, and representational techniques in architecture. (F)

ARC 5076 Formative Studio 2 (6). A continuation of architectural design investigations begun in Formative Studio. Prerequisite: ARC 5075. (S)

ARC 5077 Formative Studio 3 (6). An architectural design studio that builds upon concepts and approaches presented in Formative Studio and Formative Studio 2. Prerequisite: ARC 5076.

ARC 5175 3D Computer Modeling in Architecture (3). This advanced course will explore computer modeling in architecture. Prerequisite: Program approval.

ARC 5176C Computer Practices in Design II (3). Advanced study in concepts, issues and methods in computer-aided architectural design. Prerequisites: ARC 4058 or equivalent. Corequisite: ARC 5362.

ARC 5177 Computer Rendering in Architecture (3). This advanced course will explore three-dimensional rendering in Architecture. Prerequisite: Program approval.

ARC 5184 Architecture and the Virtual Environment (3). Implementation of virtual reality technology in architectural representations of existing and proposed built environments for presentation and design research. Prerequisites: ARC 4173, ARC 4174.

ARC 5186 Interactive Media (3). Presentation of digital images through an interactive and animated interface online or offline, as well as exploration of ideologies of interactive media.

ARC 5189 Visual Effects (3). Introduction of digital video and audio post-production techniques that add sound, text and visual effects to animations, as well as exploration of ideologies of digital animation.

ARC 5193 Design Presentation Graphics (3). Exploration of design presentation techniques and portfolio design through the use of digital photography, digital illustration, desk top publishing and web page.

ARC 5205 Advanced Design Theories (3). This seminar analyzes Western and non-Western examples of critical ideology through the investigation of key historical moments and current architectural theory and practice. Corequisite: ARC 5361. (S)

ARC 5249 Introduction to Design Theories (3). Introduction to the environmental parameters, morphological concepts and ideological principles that generate form and meaning in architecture. Explorations of related spheres of cultural production will also be explored in lectures, readings, and student assignments. Corequisite: ARC 5075.

ARC 5361 Graduate Design 1 (6). Exploration of highly articulated projects of small scale utilizing innovative research methods to strengthen and clarify design concepts taken to a detailed resolution. Prerequisite: Graduate standing. Corequisite: ARC 5483. (F)

ARC 5362 Graduate Design 2 (6). This course explores architectural projects of medium-to large-scale applying innovative building technologies to a highly resolved spatial organization. Prerequisite: ARC 5361. Corequisite: ARC 6947. (S)

ARC 5370 Urban Development 1 (3). Introduction to the planning and management of urban development projects.

ARC 5371 Urban Development 2 (3). Advanced planning and management of urban development projects. Prerequisite: ARC 5370.

ARC 5392 Urban Vertical Surface (3). Analysis of the mechanisms of surfaces: wall section, the bay, frame, grid, and their transformations.

ARC 5396 Case Studies in Architecture (3). The course explores the vast array of decisions that create the architectural experience of outstanding built works.

ARC 5467 Materials and Methods of Construction (3). Study of the types of construction and materials used in institutional, residential, and office building assemblies. How materials are installed and inspected, including the

use of special equipment. Explorations of the theories and histories of construction will be explored.

ARC 5483 Innovations in Building Technology (3). Experimental approach to new materials and methods applicable to the field of construction. Corequisite: ARC 5361. (F)

ARC 5554 Structural Design (3). Exploration of structural specifications as outlined by appropriate codes and manuals to introduce structural analysis, loadings and structural elements commonly encountered in construction for architectural analysis and design. Explorations of related and causal ideologies will be covered. Prerequisite: ARC 5582. Corequisite: ARC 5077.

ARC 5582 Structures and Systems 1 (3). Introduction to principles of physical science for design problems of structures, spaces and ecological systems. Topics include structural systems, environmental systems of building and their natural surroundings. Exploration of related and causal ideologies will be covered. Corequisite: ARC 5076.

ARC 5711 History of Design Antiquity to Middle-Ages (3). Survey of architectural, interior, and landscape design from antiquity to the middle ages, including Western and non-Western traditions. Explorations of related and causal ideologies will be covered in lectures, readings, and student assignments. Corequisite: ARC 5075.

ARC 5733 History of Design Renaissance to XIX Century (3). Survey of architectural, interior, and landscape design from the Renaissance to the nineteenth century, including Western and non-Western traditions. Explorations of related and causal ideologies will be covered in lectures, readings, and student assignments. Corequisite: ARC 5076.

ARC 5734 Culture and Art in Italy (3). Course describes the evolution of culture and aesthetics and their immediate relationship with the creation of these works. Consists of site visits and class lectures. Additional readings and project for graduate students.

ARC 5744 History of Design from the XIX Century to Present (3). Survey of architectural, interior, and landscape design from the XIX century to the present, including Western and non-Western traditions. Explorations of related and causal ideologies will be covered in lecture.

ARC 5745 Urban Architecture and the 20th Century (3). The course will examines debates on urban architecture surrounding the rise of Modernism in the 1920s and will follow those lines of thought into current discussions of architectural design in cities.

ARC 5750 Architectural History of the Americas (3). Historical analysis of the development of built forms and styles in tropical and subtropical Americas, investigating its socio-political and artistic context. Prerequisite: Program approval.

ARC 5756 The Architecture of the City (3). To analyze the layering that composes Rome's urban form and to offer a necessary basis of historical and theoretical information in order to take advantage of the Roman experience. Different periods of history of Rome are presented in lectures and site visits. Additional readings and projects.

ARC 5786 Urbanism: Social History of the Built Form (3). This course introduces students to historical analysis, theories, techniques and aesthetics as they relate to urban design.

ARC 5798 Hotels: Miami and La Habana at Mid-Century (3). A research-based, in-depth study of mid-century modern hotels constructed in Miami/Miami Beach, Florida and La Habana, Cuba just prior to the Cuban revolution.

ARC 5803 Preservation Architecture: Issues and Practices (3). This course explores issues and practices of architectural preservation as an integral concern of architecture.

ARC 5905 Solar Decathalon (1). Research based course to develop the architectural and engineering concepts for the solar decathalon house.

ARC 5933 Special Topics (1-6). Coursework on a particular aspect of architecture under the direction of faculty in a classroom format. Prerequisite: Program approval.

ARC 5938 Special Topics Design Studio (6). An architectural design studio based on a particular aspect of architectural design and relevant ideologies under the direction of appropriate faculty.

IND 1932 Special Topics/Interior Design I (4). An introduction to the basic perceptual, social, cultural, environmental and technical issues of interior design. Basic interior design projects.

IND 2000 History of Interiors from Renaissance to 1917 (3). An analysis of the history of architectural interiors, furniture and decorative arts from the Renaissance Period to the early 20th century.

IND 3131 History of Modern Interior Design (3). Analysis of the 20th century architectural interiors, furniture and decorative arts from 1890-present. Prerequisites: ARC 2701, ARC 2702.

IND 3215 Interior Design 5 (4). Analysis, programing and design of commerical facilities including hospitality and retail. Students research the functions, and requirements of the project, design the interior spaces, develop architectural details and work on the selection of furniture and finishes. Corequisites: IND 3451C, IND 3423C. (F)

IND 3216 Interior Design 6 (4). Consideration and application of design criteria with an emphasis on planning and design of interior for the work environment. Students develop programs, work on space planning, as well as furniture selection, illumination and selected architectural details. Prerequisites: IND 3215, IND 3423C. Corequisites: ARC 4270C or IND 4501. (S)

IND 3308 Visual Notation for Interior Design (3). Course will focus on technique, through exercise and assignments of varying degrees of complexity will explore and develop the range of skills necessary to develop confidence in drawing in interior design. Prerequisite: Program approval.

IND 3423C Sources, Materials, and Cost Estimating for Interiors (3). Sources and materials used by interior designers in the development of a design project. Materials available in the market for furniture finishes and

equipment and its costs are analyzed. Prerequisites: ARC 1461 and ARC 2580. Corequisites: IND 3215, IND 3451C. (S)

IND 3430C Lighting Design (3). A fundamental course in lighting with emphasis on interaction with the design of an interior space. Prerequisites: IND 3215 or Architectural Design 5 (ARC 4324).

IND 3451C Interior Design Construction Drawing 1 (3). Development of Interior Design working drawings with emphasis on detailing and cabinetry. Prerequisites: ARC 1461, ARC 2580. Corequisites: IND 3215, IND 3423C.

IND 3469 Computer Applications in Interior Design (3). Advanced application of computer tools used in interior design process and communication. Prerequisite: ARC 4058.

IND 3930 Special Topics Design Studio (4). An interior design studio based on a particular aspect of interior design under the direction of appropriate faculty.

IND 4225 Interior Design 7 (4). Analysis of the human condition in design. Topics include the behavioral and environmental sciences, ergonomics, and ecology and their impact on design. Prerequisite: IND 3216. Corequisites: IND 4943. (F)

IND 4226 Interior Design 8 (4). The final studio involves projects of increased scale and complexity. The studio emphasizes the diversity of aspects that integrate the design process from conceptual formulations and programming to the full development of the design thesis. Prerequisites: IND 4225 and IND 4943C. (S)

IND 4311 Color Theory (3). Use of color in the built environment including principal color systems, methods of color harmony, effects of visual phenomena, and various psychological, cultural and historical implications. Prerequisites: ARC 1132, ARC 2304.

IND 4441C Furniture Design (4). Introduction to the human factors, concepts, function, materials and techniques of furniture design. Prerequisite: ARC 4058.

IND 4455C Advanced Construction Documents (3). Advanced production of construction documents. Includes design of architectural details, material specification, integration of building systems, and application of life safety-accessibility issues. Prerequisites: IND 3451C, IND 3423C, IND 3216.

IND 4501 Interior Design Practice (3). The student will be introduced to the specific skills necessary to succeed in the preparation of legal documents and specifications. Prerequisite: IND 3215.

IND 4940 Interior Design Internship (3). Advanced issues in interior design practice learned through work experience with licensed professionals. Prerequisites: ARC 4270C or IND 4501, IND 3451C, IND 3423C, IND 3430C.

IND 4943C Programming (3). Preparation of program for the final interior design studio project. Instruction on methods of information gathering, analysis, and evaluation. Environment and behavior theories will be explored. Prerequisite: IND 3216. Corequisite: IND 4225. (F)

IND 5164 History of 21st Century Furniture Design (3). Students will research and analyze the social, political, technical economic and theoretical forces that contribute to new movements in late 20th century and early 21st century furniture design.

IND 5235 Formative Studio 1 (6). Introduction to concept development, spatial expression, and representational techniques in architecture.

IND 5236 Formative Studio 2 (6). A continuation of Architectural Design investigation begun in Formative Studio. Prerequisite: IND 5235.

IND 5239 Interior Design Formative Studio 3 (6). Interior Design Studio exploring advanced concepts and approaches toward complex problem solving and critical approach to making solutions. Prerequisite: Graduate standing. Corequisite: IND 5427.

IND 5319 Visual Notation for Interior Design (3). Course will develop drawing skills in multiple media, actively engaging in projects of drawing as a medium of investigation, documentation, memory, observation and presentation for interior design. Prerequisite: Program approval.

IND 5427 Interior Design Technology (3). Conceptual framework for design of building assemblies, understanding of construction technologies and properties of interior building materials. Construction drawings and specifications are produced. Prerequisite: Graduate standing. Corequisite: IND 5239.

IND 5428 Materials and Methods (3). Research and analysis of building materials and methods. Properties of materials and performance in a variety of light building, interior and environmental assemblies are investigated.

IND 5438 Lighting Design (3). Exploration of theories and applications of lighting design. Emphasis on studying research about interactions between light, people and articulation of interior space.

IND 5445C Furniture Design (6). Providing a general overview of furniture design process, this design/build studio course teaches students about ergonomics, scale, space, structure and materiality related to furniture design.

IND 5446 Professional Practice and Entrepreneurship in Furniture Design (3). Learn about industry standards and entrepreneurial strategies that successful designers and furniture companies use when bringing new designs to different markets.

IND 5447C Advanced Furniture Design (6). Research, analyze and design furniture using wood, metals and plastics. Instruction will include advanced technical skills and emphasis on qualitative and conceptual aspects of design.

IND 5475 Computer Applications in Architecture (3). Study of computer software packages applicable to the architecture office environment, with particular emphasis on CAD software, graphics packages and desktop publishing.

IND 5485 Innovations in Building Technology (3). Experimental approach to new materials and methods applicable to the field of construction. Field and laboratory exercises in the evaluation of technical support assemblies

for buildings. Prerequisite: IND 5427. Corequisite: IND 6255.

IND 5508 Professional Practice (3). Advanced study of office administration, contract negotiation, fee structure, professional ethics, client and public relations. Investigations and analysis of business organizations and project management. Prerequisite: Program approval.

IND 5625 Design Theories (3). Overview of the environmental parameters, morphological concepts and ideological principles that generate form and meaning in interior design, architecture, and landscape architecture.

IND 5626 Project Programming (3). This seminar analyzes Western and non-Western examples of critical ideology through the investigation of key historical moments and current architectural theory and practice. Prerequisite: Program approval.

IND 5645 Structures and Systems 1 (3). Study of physical science for structural design problems and for ecological systems. Review analyze and evaluate structural systems and building environmental systems.

IND 5937 Special Topics (3). Examination of the conceptual framework supporting the theory, and research applications in specialized area of interior design. Prerequisite: Program approval.

LAA 3212 Landscape Documentation (3). Production of landscape construction documents, including drawings and project manual with bidding documents, contract documents and technical specifications on the computer. Prerequisite: Program approval.

LAA 3232 Theory of Planting Design (3). An introduction to the study of principles and methods related to the ecological, functional, and aesthetic use of vegetation in landscape architecture. Prerequisite: Program approval.

LAA 3248 Catalysts of the Urban Canvas (3). Seminar-based course exploring the relationship of focused landscape and architectural interventions in the evolution and development of the urban fabric and its physical context.

LAA 3333 Site Analysis and Design (3). Introduction to ecological, functional, and aesthestic considerations in site analysis, planning and design.

LAA 3343 Visual Notation in Landscape Architecture I (3). Course will focus on technique, through exercise and assignments of varying degrees of complexity to explore and develop a range of skills necessary to develop confidence in drawing landscape architecture. Prerequisite: Program approval.

LAA 3350C Landscape Architecture Design 5 (4). Landform as a design element. Integration of landform design and structure. Small to mid-sized scale projects of limited complexities. Prerequisite: ARC 2304. Corequisites: LAA 3712, LAA 3802.

LAA 3354C Landscape Architecture Design 6 (4). Development of design proposals applying principles and methods in landscape architecture within a tropical and sub-tropical context. Regional mid-sized to large scope scale projects. Prerequisites: LAA 3712, LAA 3802. Corequisites: LAA 3420, LAA 3602.

LAA 3372L Computer Applications in Landscape Architecture (3). Advanced study of computer software packages applicable to the architecture office environment, with particular emphasis on CAD software, graphics packages and desktop publishing. Prerequisite: Program approval.

LAA 3377C GIS Applications in Landscape Modeling (3). Introduction to modeling capabilities of GIS in the planning process addressing the natural and cultural characteristics of the landscape. Prerequisite: Program approval.

LAA 3420 Landscape Construction (3). Technical aspects of the design and specification of sitework, including materials, products, and methods of installation used in landscape construction. Prerequisite: Program approval.

LAA 3430 Landscape Structures (3). Production of landscape construction details for structures and systems used in landscape architecture. Prerequisite: Program approval.

LAA 3602 South Florida Landscapes (3). Study of the structure, function, and change in the natural and cultural landscapes of tropical and subtropical regions. Prerequisite: Program approval.

LAA 3712 History of Landscape Architecture (3). Historical survey of the principal sites and traditions manifested in the evolution of landscape architecture and urban design from antiquity to the present. Prerequisites: ARC 2701, ARC 2702.

LAA 3802 Landscape Development (3). Technical aspects of the design and specification of earthwork, including materials, products, and methods of installation used in landscape development. Prerequisite: Program approval.

LAA 3905C Special Topics Design Studio (4). A landscape architectural design studio based on a particular aspect of landscape architectural design under the direction of appropriate faculty.

LAA 4210 Professional Office Practice (3). An introduction in office administration, negotiation of contracts, fee structure, professional ethics, client and public relations. Business organization, procedure scheduling and task allocation. Prerequisite: Program approval.

LAA 4344 Italian Design and Culture (3). Course to develop practical facility with the Italian language for conducting everyday tasks, engaging socially and increasing the qualitative depth of the work to be accomplished in the course. Corequisites: LAA 4354C, LAA 4345.

LAA 4345 Landscape Architecture of the City (3). The study of urban landscape architecture in Genoa, Italy, with emphasis on analysis and representation using manual drawing, digital photography, and conceptual model. Corequisites: LAA 4344, LAA 4354C.

LAA 4354C Landscape Architecture Design 7 (4). Exploration of form, circulation and spatial contexts for the design of urban sites. Consideration of cultural and natural factors addressing intermediate to large scale complexity.

Prerequisites: LAA 3420, LAA 3602. Corequisite: LAA 4375C.

LAA 4355C Landscape Architecture Design 8 (4). Exploring contemporary landscape architecture issues through the design of projects varying in scale and complexity. Prerequisite: LAA 4354C. Corequisites: LAA 4210, LAA 3212.

LAA 4375C Computer Modeling (3). This course will explore computer modeling in landscape architecture. Prerequisite: Program approval.

LAA 4940 Landscape Architecture Internship (3). Advanced issues in professional practice learned through work experience with a licensed practitioner. Prerequisites: LAA 3350C, LAA 3354C, LAA 4354C.

LAA 5233 Theory of Planting Design (3). Study of principles and methods related to the ecological, functional, and aesthetic use of vegetation in landscape architecture. Prerequisite: Program approval. (SS)

LAA 5235 Theory of Landscape Architecture (3). Critical review of the environmental parameters, morphological concepts and ideological principles that generate form and meaning in landscape architecture. Prerequisite: LAA 5716. (S)

LAA 5243 Regional Landscape Issues (3). Exploration of the landscape as cultural construct of social, economic, and scientific values relevant to regional issues of land use and management. Prerequisite: Program approval. (SS)

LAA 5249 Catalysts of the Urban Canvas (3). Seminar-based course exploring the relationship of focused landscape and architectural interventions in the evolution and development of the urban fabric and its physical context.

LAA 5343 Visual Notation in Landscape Architecture I (3). Course will develop drawing skills in multiple media, actively engaging in projects of drawing as a medium of investigation, documentation, memory, observation and presentation for landscape architecture. Prerequisite: Program approval.

LAA 5371 Computer Practices in Landscape Architecture 1 (3). Computer applications of graphics, modeling, and animation techniques used in landscape architecture. Prerequisite: Program approval. (SS)

LAA 5374 Computer Practices in Landscape Architecture 2 (3). Computer application of drafting and design techniques used in landscape architecture. Prerequisites: LAA 5371, Program approval. (F)

LAA 5378 GIS Applications in Landscape Modeling (3). Introduction to modeling capabilities of GIS in the environmental planning process addressing the natural and cultural characteristics of the landscape. Prerequisite: Program approval. (SS)

LAA 5422 Landscape Development (3). Technical aspects of the design and specification of earthwork, including materials, products, and methods of installation used in landscape development. Prerequisite: LAA 5371. (F)

LAA 5423 Landscape Construction (3). Technical aspects of the design and specification of sitework, including materials, products, and methods of installation used in landscape construction. Prerequisite: LAA 5422. (S)

LAA 5425 Landscape Documentation (3). Production of landscape documents including drawings and project manual, bidding documents, contract documents and technical specifications on the computer. Prerequisite: LAA 5423. (F)

LAA 5427 Landscape Structures (3). Production of landscape construction details for structures and systems used in landscape architecture. Prerequisite: LAA 5423. (F)

LAA 5540 Landscape Horticulture (3). Overview of horticultural management practices related to the growth, transport, installation, and maintenance of vegetative materials used in landscape architecture. Prerequisite: Program approval. (SS)

LAA 5541 South Florida Landscapes (3). Study of structure, function, and change in the natural and cultural landscapes of tropical and subtropical Florida. Prerequisite: Program approval. (S)

LAA 5652 Formative Studio (6). Introduction to concept development, spatial expression, and representational techniques in landscape architecture. Prerequisite: LAA 5343. (F)

LAA 5653 Site Studio (6). Application of landscape architecture principles and methods to site design in tropical and subtropical contexts. Prerequisite: LAA 5652. (S)

LAA 5715 History and Theory of Architecture (3). Overview of the history and theory of architecture and urban design from antiquity to the present. Prerequisite: Program approval. (SS)

LAA 5716 History of Landscape Architecture (3). Historical survey of the principal sites and traditions manifested in the evolution of landscape architecture and urban design from antiquity to the present. Prerequisite: Program approval. (F)

LAA 5905C Special Topics Design Studio (6). A landscape architectural design studio based on a particular aspect of landscape architectural design and relevant ideologies under the direction of appropriate faculty.

LAA 5940 Landscape Architecture Internship (3). Advanced issues in professional practice learned through work experience with a licensed professional.

URP 5316 Environmental and Urban Systems (3). Overview of basic issues and principles of environmental and urban planning and design systems. Emphasis will be placed on multi-disciplinary linkages.

URP 5912 Research Methods (3). Methods of information search, data interpretation, and hypotheses formulation used in the field.

School of Art and Art History

Juan Martinez, *Professor and Director*
Tori Arpad, *Associate Professor*
Pip Brant, *Associate Professor*
Ralph F. Buckley, *Professor*
William Burke, *Professor and Assistant Director, Graduate Studies*
Carol Damian, *Professor*
Eduardo del Valle, *Professor*
Mirta Gómez, *Professor*
Daniel Guernsey, *Associate Professor*
Clive King, *Professor*
Jacek Kolasiński, *Assistant Professor*
William Maguire, *Professor*
Manuel Torres, *Professor*
Barbara Watts, *Associate Professor*

Bachelor of Fine Arts in Art

Degree Program Hours: 120

Freshman-Sophomore Requirements

ARH 2050	Art History Survey I	3
ARH 2051	Art History Survey II	3
ART 1201C	2-D Design	3
ART 1203C	3-D Design	3
ART 2300C	Drawing I	3
ART 2330C	Figure Drawing I	3
ART 2XXX	Studio Art Elective	3
ART 2XXX	Studio Art Elective	3
Total		**24**

Remarks: Admission to the program requires completion of appropriate General Education Requirements, CORE, or UCC requirements, and the CLAST test requirement.

Junior-Senior Requirements

Required Courses

ARH 4450	Modern Art	3
ARH 4470	Contemporary Art	3
ARH Elective (2) (upper division)		6
Studio and Art History Electives (Maximum 12 credits in Art History)		27
ART 3821 & 3822 Visual Thinking I & II		6
ART 4952C & 4953C Thesis I & II		6
Electives outside of the Art Department		6-9
Total		**60**

Bachelor of Arts in Art History

The School of Art and Art History offers a BA in Art History that is designed to introduce methodologies and subjects of Art History from throughout the world. In addition to traditional European and American subjects from ancient to modern times, we offer a strong emphasis on Latin American art from Pre-Columbian to the present. The BA in Art History provides professional education as preparation for careers as Art professionals and for further graduate study. The BA compliments our BFA degree program in Art and provides significant interaction between artists and historians.

Degree Program Hours: Minimum 120

Lower Division Requirements:

ARH 2050	Art History Survey I	3
ARH 2051	Art History Survey II	3
ART 1201C	2-D Design	3
ART 2300C	Drawing I	3
Foreign Language		10

(While we require only that the University language requirements be met, it should be noted that some graduate programs require competence in Italian, German, or French)

Remarks: Admission to the program requires completion of appropriate General Education Requirements, CORE, or UCC requirements, and the CLAST test requirement.

Upper Division Requirements:

ARH 3811	Introduction to Art Historical Methodology	3
ARH 4450	Modern Art	3
ARH 4470	Contemporary Art	3
ARH Core:		
One course from each of these areas:		
Renaissance/Baroque		3
19th Century		3
20th Century		3
Non-Western & Pre-Columbian		3
Latin American		3
ARH electives (4)		12
ART electives		3
ARH 4970	Art History Thesis	3
Electives		18

(At least 9 of these elective credits must be courses outside the School of Art and Art History. We encourage taking courses in the humanities that pertain to Art History)

Minor in Art (18 credit hours)

ARH Elective	3
ART 2300C or ART 2330C Drawing I/Figure Drawing I	3
ART Studio Electives (4)	12

Note: A minimum of 9 credits must be at FIU, and a minimum of 9 credits must be upper-division (3000-4000 level)

Total 18

Minor in Art History (18 credit hours)

ARH 4450	Modern Art	3
ARH 4470	Contemporary Art	3
ART Studio Elective		3
ARH Electives (3)		9

Note: A minimum of 9 credits must be at FIU, and a minimum of 9 credits must be upper-division (3000-4000 level)

Total 18

Course Descriptions

Definition of Prefixes

ARH-Art History; ART-Art; PGY-Photography.

ARH 2000 Exploring Art (3). Offers an introductory, non-chronological approach to the understanding and appreciation of art.

ARH 2050 Art History Survey I (3). A broad survey of the visual arts and architecture from the Paleolithic Period through the Middle Ages.

ARH 2051 Art History Survey II (3). A broad survey of the visual arts and architecture from the Renaissance through the Modern Age.

ARH 3210 Early Christian and Byzantine Art (3). The art of the Byzantine Empire from the early Christian period

and the foundation of Constantinople to the Ottoman conquest and afterward (300-1500 A.D.). Prerequisites: ARH 2050 or permission of the instructor.

ARH 3313 The Art of Renaissance Florence (3). Course to accompany student program in Florence will focus on all periods of Italian Renaissance Art with particular emphasis on Florentine Art.

ARH 3350 Baroque Art (3). European art of the 17th and early 18th centuries. Artists to be considered include Bernini, Caravaggio, Velazquez, Vermeer, Rembrandt, Rubens, Poussin, La Tour, and Watteau. Prerequisite: ARH 2051.

ARH 3811 Seminar: Studies in the Methodology of Art History (3). To introduce art history majors to the variety of methods scholars have adopted and developed for conveying their perspectives on art history, including aesthetics and art theory. Prerequisites: ARH 2050 and ARH 2051.

ARH 3930 Special Topics in Art History (3). Rotating special topics in art history. May be repeated with change of content. Prerequisites: ARH 2050 and ARH 2051 or permission of the instructor.

ARH 4014 History of Decorative Arts (3). A survey of the more important and influential periods in history in the production of ceramics, fabrics, glass, jewelry and silver-smithing.

ARH 4131 Greek Art (3). The art of Greece from the Bronze Age through the Classical Period.

ARH 4151 Roman Art (3). The art of Ancient Rome from the early Iron Age through the late Roman Empire.

ARH 4310 Early Italian Renaissance (3). A study of Italian Renaissance art from its origins in the late Gothic period through the 15th century. Artists to be considered include Giotto, Duccio, Masaccio, Ghiberti, Brunelleschi, Donatello, Fra Angelico, Uccello, and Botticelli

ARH 4311 The Art of Venice: The Rise of a Mediterranean Superpower (3). Analysis of artistic aspects of Venice's growth to power. Emphasis on the Church of St. Mark and the Venetian masters.

ARH 4312 Later Italian Renaissance (3). A study of the late 15th and 16th century Italian art, with emphasis on the High Renaissance and Mannerism. Artists to be considered include Leonardo da Vinci, Michelangelo, Raphael, Andrea del Sarto, Giorgione, Titian, Pontormo, and Parmigianino.

ARH 4413 Enlightenment and Romanticism (3). Examines the art of the European Enlightenment and Romantic movement from 1700 to 1848. Artists to be considered include Watteau, Greuze, David, Goya, Blake, Ingres, Gericault, Delacroix, and Friedrich. Prerequisites: ARH 2051 or permission of the instructor.

ARH 4414 19th Century Painting (3). A study of Neoclassicism, Romanticism, Realism, and Impressionism. Artists to be considered include David, Ingres, Gericault, Delacroix, Goya, Courbet, Manet, Degas, Monet, and Renoir.

ARH 4430 Art and Politics (3). An investigation into the interrelationship between art and political issues, with emphasis on the 19th and 20th centuries.

ARH 4433 Realism, Impressionism, and Post-Impressionism (3). Examines the widespread engagement with modern life in European art from 1848 to 1900. Artists considered include Courbet, Manet, Monet, Renior, Degas, Seurat, Van Gogh, Gauguin, Cezanne, and Munch. Prerequisites: ARH 2051 or permission of the instructor.

ARH 4450 Modern Art (3). A survey of European and American art from 1890-1945. Prerequisites: ARH 2051 or permission of the instructor.

ARH 4470 Contemporary Art (3). A survey of art from 1945 to the present. Prerequisites: ARH 2051 or ARH 4450 or permission of the instructor.

ARH 4471 Post 1985 Art (3). Examines the changing roles of the arts within the current socio-political context of plurality, corporate sponsorship and mass communications.

ARH 4504 Primitive Art (3). An introduction to the art of widely dissimilar groups from areas on the margin or beyond the cultural influences of Europe, the Near East, India, China, and Japan. Emphasis will be placed on African, Oceanic, and North American Indian Art.

ARH 4552 Art of China and Japan (3). An introduction to the art of China to the Ming Dynasty and of Japan through the 18th century. The emphasis will be on painting and sculpture, with some ceramics and architecture.

ARH 4600 North American Indian Art (3). A survey of native North American art history with emphasis on the post-contact period. The arts of the far North, Northwest coast, Southwest, Plains and the Eastern Woodlands.

ARH 4610 American Art (3). A survey of American painting from the Colonial period to the eve of World War I. Artists to be studied include Copley, West, Cole, Whistler, Sargent, Homer, Henri, and Bellows.

ARH 4650 Pre-Columbian Art (3). A survey of Pre-Columbian Art from approximately 2000BCE to 1500CE. of Mesoamerica, Intermediate area from Honduras to Colombia and the Andes.

ARH 4652 Pre-Columbian Art of the Andes (3). A survey of Andean Pre-Columbian art and architecture. Basic characteristics of technique, style and iconography in relation to Andean socioeconomic and cultural patterns.

ARH 4653 Mesoamerican Art History (3). A survey of Meso-American Pre-Columbian art and architecture from the Mexican and Mayan territories, 1500BCE to the Conquest.

ARH 4662 The Art of Spain and Her Colonies (3). Explores art of Spain from 1492 through early 19th century, the encounter between Spain and the Americas after the Conquest, and the art of the colonies.

ARH 4670 20th Century Latin American Art (3). The art of Central and South America and the Caribbean of the 20th century.

ARH 4672 A History of Cuban Art (3). A survey of the visual arts in Cuba (sculpture, painting, and prints) with emphasis on the 20th century.

ARH 4710 History of Photography (3). A chronological examination of the work of the world's most significant photographers, from photography's invention in the 1830's to the present.

ARH 4713 History of Photography Since 1945 (3). An examination of the most significant photographic works, critical concepts, and new trends which have arisen since WWII. Prerequisite: ARH 4710.

ARH 4844 Spanish Art (3). Explores the art of Spain from 1492 through the early 20th century. Includes painting, sculpture and architecture.

ARH 4871 Women and Art (3). Women in the history of art; past, present and future.

ARH 4905 Directed Studies (1-6). A group of students, with the approval of the art faculty, may select a master teacher of theory, research or criticism in selected areas as film, painting, sculpture, architecture, crafts, art history, multi-media art, etc. Arrangements must be made at least a semester before course is offered. May be repeated.

ARH 4910 Research (1-6). Art history, criticism, and theory in areas not covered by the present program and that the student wishes to study. Prerequisite: Permission of the instructor. May be repeated.

ARH 4970 Art History Thesis (3). Required for art history majors. Students will research a topic and prepare a serious quality paper. Prerequisite: ARH 3811.

ARH 5325 Graduate Art in Renaissance Florence (3). For study in Florence. Course examines art of Renaissance from its beginnings in Florence with on-site classes. Prerequisite: Graduate standing.

ARH 5362 Baroque Art (3). Baroque art and architecture of the 17th and 18th centuries in Europe. Slide lectures and discussions, advanced research required.

ARH 5440 Graduate Nineteenth Century Art (3). An advanced survey of 19th-century art in its social, political, and historical context. Includes French, English, Spanish artists. Prerequisite: Graduate standing.

ARH 5465 Modern Art (3). Offers a history of modern art from ca 1880 to 1940. It concentrates on the study of European and American avant-garde visual art movements with emphasis on their art in modern society. For graduate students.

ARH 5482 Graduate Contemporary Art (3). Course examines the visual arts in Europe and the U.S. from the 1960's to the present with focus on major art movements, artists, and artwork. Prerequisite: Graduate standing.

ARH 5663 Graduate Art of Spain and Her Colonies (3). Course explores art of Spain from 1492 through early 19th century, the encounter between Spain and the Americas after the Conquest, and the art of the colonies. For graduate students.

ARH 5671 Seminar in 20th Century Latin American Art (3). This course will examine the art of the 20th century, in a seminar focusing on painting and sculpture in Europe and America from the end of the 19th century to the present day. For graduate students.

ARH 5675 Graduate History of Cuban Art (3). A study of visual arts of Cuba in the 20th century, within historical, social, and cultural context. Prerequisite: Graduate standing.

ARH 5715 History of Photography (3). A chronological examination of the work of the world's most significant photographers from photographic works and ideas from invention to the present. For graduate students.

ARH 5716 History of Photography Since 1945 (3). An examination of the most significant photographic works, critical concepts, and new trends which have arisen since WWII. Prerequisite: ARH 4710. For graduate students.

ARH 5797 Museum Education (3). Course examines educational functions of a museum including interpretive principles and techniques, program design and community outreach.

ARH 5805 Critical Studies in the Visual Arts (3). Introduction to the methods and concerns of recent art history. Discussion of students' work in context of the contemporary art world. Prerequisites: ARH 4450 and ARH 4470. For graduate students.

ARH 5845 Graduate Spanish Art (3). Explores the art of Spain from 1492 through the early 20th century. Painting, sculpture and architecture covered in slide lectures.

ARH 5850 Introduction to Museum Studies: History and Philosophy of Museums (3). Introduces the wide range of topics and issues associated with different types of American museums. Museums are examined as cultural, political, and educational institutions. Prerequisite: Graduate standing.

ARH 5851 Museum Ethics, Policies and Procedures (3). The legal, ethical status of museums and the obligation to the public regarding their governance, policymaking and financial planning. Includes theoretical and practical discussions with attention to museums. Prerequisites: Graduate standing or permission of the instructor.

ARH 5852 Museum Registration Methods (3). A course in museum registration is designed to provide museum studies students with competency in all areas of object care, registration and information management. Prerequisites: Graduate standing or permission of the instructor.

ARH 5853 Visual Arts Marketing (3). Students seeking an advanced degree in studio art will be able to appraise and present a portfolio to an appropriate organization. Prerequisite: Graduate standing.

ARH 5872 History of Women Artists (3). Surveys the history of women artists with some discussion of the history of images of women. For graduate students.

ARH 5896 Seminar in the History and Criticism of Art (3). Examines particular periods or subject areas in the history of art. Course content varies from semester to semester, and with a change in theme, the course may be repeated. Prerequisites: Graduate standing or permission of the instructor.

ARH 5897 Special Topics in Art History (3). Rotating special topics on the graduate level in art history. May be repeated with change of topic. Prerequisites: ARH 4450 and ARH 4470. For graduate students.

ARH 5907 Directed Studies (1-6). A group of students, with the approval of the art faculty may select a master teacher of theory, research or criticism in selected areas of film, painting, sculpture, architecture, crafts, art history, multi-media art, etc. Arrangements must be made at least a semester before course is offered. May be repeated. For graduate students.

ARH 5913 Research (1-6). Art history, criticism, and theory in areas not covered by the present that the student wishes to study. Prerequisite: Permission of the instructor. May be repeated. For graduate students.

ARH 5940 Internship Experience (3). Supervised work experience in approved institution. Prerequisite: Permission of the instructor. May be repeated.

ART 1201C 2D Design (3). Studio course introducing the basic art elements such as line, value, and color to develop the students vocabulary and awareness of two-dimensional potential in various media.

ART 1203C 3D Design (3). Studio course introducing the basic elements inherent in three-dimensional works of art. Shape, mass, balance, proportion, and scale are elements which will be explored.

ART 2150C Jewelry and Metalwork I (3). Introduction to materials, equipment and basic procedures in making jewelry and holloware. Identification, application and maintenance of machines and handtools, safety procedures, cutting, soldering and finishing projects.

ART 2300C Drawing I (3). An introduction to the fundamentals of drawing. The course equips the student with a variety of basic skills, approaches and concepts explored through a comprehensive range of media.

ART 2301C Drawing II (3). The course is designed for the student who has acquired basic drawing skills. It strengthens technical and conceptual skills while introducing more experimental approaches. Modes of personal expression are also developed. Prerequisite: ART 2300C

ART 2330C Figure Drawing I (3). Drawing from model. Student will study gesture, movement, form, volume, light, and other varied media.

ART 2400C Printmaking I (3). Introduces the student to a number of processes. Explores primarily one of the following: etching, lighography or screen printing with excursions into relief collograph, monotype and color as appropriate.

ART 2401C Printmaking II (3). With a knowledge of basic intaglio and relief printing, the student will explore specific media such as etching, lithography, silk-screen and other experimental techniques.

ART 2500C Painting I (3). Introduction to development of expression, through individual understanding of tools, materials, technique, perception and vocabulary of painting.

ART 2702C Sculpture I (3). Beginning sculpture students will be given assigned problems structured to study the forms in nature and the work of other sculptors.

ART 2705C Figure Sculpture I (3). Introduction to figure sculpture. Basic studio course involving the study and rendering of the human figure using clay as the primary medium.

ART 2752C Ceramics I (3). A beginning course for art and non-art majors that introduces the fundamentals of throwing and glaze applications.

ART 3115C Low Temperature Ceramics (3). An in-depth study of low-temperature clays and glazes, and exploration of a variety of glazing and firing techniques, including lustres, residual salt, raku, white and red earthenware, etc.

ART 3151C Jewelry and Metalwork II (3). Basic metal fabrication techniques, use and maintenance of tools and equipment. Intermediate soldering, forming, finishing, forging, stone setting, raising, reticulation, fusing, and safety procedures. Prerequisites: ART 2150C or permission of the instructor.

ART 3152C Jewelry and Metalwork III (3). Continuation of jewelry and metalsmithing techniques: soldering, stone setting, forging, forming, casting, raising, shell forming, enameling, fold forming and finishing. Prerequisites: ART 3151C or permission of the instructor.

ART 3158C Small Scale Metal Fabrication and Castings (3). Introduction to the technical and conceptual understanding needed to cast and fabricate soft metals.

ART 3331C Figure Drawing II (3). Exploration of the live human figure as it determines our understanding of subject, theme, composition and meaning. Prerequisite: ART 2330C.

ART 3332C Figure Drawing III (3). Further exploration of the live human figure as it determines our understanding of subject, theme, composition and meaning. Prerequisite: ART 3331C.

ART 3402C Printmaking III (3). Exploration and expansion of experimental print processes as they relate to student's own imagery and acquired skills. Greater independence and personal direction.

ART 3504C Painting II (3). Intermediate painting requiring refinement of technique and personal expression. Frequent critiques of student work. Prerequisite: ART 2500C.

ART 3521C Painting III (3). Intermediate painting requiring further refinement of technical skill and personal expression. Frequent critiques of student work. Prerequisite: ART 3504C.

ART 3565C Fiber Based Painting (3). Introduces the technology of creating imagery on and with the use of clothing, thread, printmaking, ink, and photography.

ART 3593C Collage/Assemblage (3). Addresses content development issues as well as formal design and technical problems concerning collage and assemblages.

ART 3630C Introduction to Experimental Video Art (3). Introduction to basic practices of video media with emphasis on making video/audio work.

ART 3637C Digital Media Foundation (3). A dynamic, inter-disciplinary approach to the creation of video art and interactive media work.

ART 3638C Video Installation (3). Explores concepts, history, and methods for production of video artworks.

ART 3681C Introduction to Time Art (3). An introduction to the theory and practice of time based media.

ART 3682C Intermediate New Media (3). Development of new media and electronic art skills for intermediate students with experience in digital media. Prerequisite: ART 3681C.

ART 3702C Sculpture II (3). Intermediate sculpture is structured for the student who has acquired basic skills and is ready to test their creative abilities through individualized projects. Prerequisite: ART 2702C.

ART 3710C Sculpture III (3). This class is an extension of ART 3703. Students are expected to continue to develop and explore new ideas. Prerequisite: ART 3702C.

ART 3713C Figure Sculpture II (3). A basic sculpture class emphasizing anatomical study with 2 and 3 dimensional rendering in clay, training the student to observe and accurately model the human figure. Prerequisites: ART 2705C or permission of the instructor.

ART 3761C Ceramics II (3). Intermediate ceramics is designed for the student who has acquired the fundamental skills taught in basic ceramics. Projects are designed to advance technical skills and aesthetic growth. Prerequisite: ART 2752C

ART 3763C Figure Sculpture III (3) Intermediate figure sculpture where students refine their two- and three-dimensional renderings of the human figure. Prerequisites: ART 2702C or ART 3713C or the permission of the instructor.

ART 3782C Ceramics III (3). Concentrates on the development of technical skills in relationship to personal vision, with a view towards a consistent body of work. Prerequisite: ART 3761C.

ART 3789C World Ceramics (3). An introduction to clay through studio practice combined with the study of technical and aesthetic developments in ceramics with selected cultures and historical periods throughout the world.

ART 3809 Performance Art (3). A workshop on the history and practice of performance art for the fine arts student. Focus on intersections with other visual arts media and social contexts. Not a course in dance, music or theater.

ART 3821 Visual Thinking I (3). A beginning studio-based course with a strong theoretical component where concepts are examined through a variety of approaches and media. For visual arts majors only

ART 3822 Visual Thinking II (3). An advanced studio-based course with a strong theoretical component where concepts are examined through a variety of approaches and media. Prerequisite: ART 3821.

ART 3830C Color Theory (3). This course is designed to familiarize the student with the theory and principles of color as it relates to the arts. Lecture, demonstration, and application through assigned projects will be included.

ART 3837C Materials and Techniques (3). Instruction in the craft of painting. Demonstration and exercise in the following will be included: color, pigments, ground, all major media, studio and equipment.

ART 3850 FIU in New York (3). A study of New York's art world and contemporary artists in New York City.

ART 3930 Special Topics in Studio Art (3). Rotating special topics in studio art. May be repeated with change of content.

ART 3949C Cooperative Education in Visual Arts (3). A student majoring in visual arts may spend several semesters fully employed in industry in a capacity relating to the major. Prerequisite: Permission of the chairperson.

ART 4114C Ceramics (3). The advanced student will explore all aspects of expression in clay and glaze. Students will be expected to be mostly self-directed. Prerequisites: ART 3782C or permission of the instructor. May be repeated.

ART 4153C Jewelry and Metalwork IV (3). Advanced level work: enamel, raising, shell forming, granulation, niello, mokume, keumboo, reticulation, stone setting. Prerequsites: ART 3151C and ART 3152C.

ART 4154C Jewelry and Metalwork V (3). Advanced level work and advanced techniques: enamel, raising, shell forming, fold forming, granulation, niello, mokume, keumboo, reticulation, and stone setting. Prerequisites: ART 3152C and ART 4153C.

ART 4156C Jewelry and Metalwork VI (3). Pre-thesis, in-depth study in some area related to metalsmithing. Projects may include work for a commission, exhibition or developing new techniques/design concepts. Participation in BFA show. Prerequisites: ART 2150C, ART 3151C, ART3152C.

ART 4312C Drawing III (3). Students at this level should have a proficient level of practice and conceptual skills. These skills are consolidated and further developed. There is a strong emphasis on self-directed study. Prerequisite: ART 2301C.

ART 4313C Drawing IV (3). Students are expected to possess an accomplished level of skill and a strong personal direction in order to focus on the development of a consistent body of personal work.

ART 4314C Drawing V (3). Advanced drawing toward coherent body of work. Prerequisite: ART 4313C.

ART 4315C Drawing VI (3). Drawing has to be BFA exhibition quality. Individual is engaged in a mature cohesive body of work. Prerequisite: ART 4314C.

ART 4333C Figure Drawing IV (3). Students are expected to possess a developed level of skill in drawing the figure and a strong personal direction. Prerequisite: ART 3332C.

ART 4334C Figure Drawing V (3). Consolidation of the focus direction established in ART 4333C. Advanced drawing further developing technical and conceptual skills. Prerequisite: ART 4333C.

ART 4335C Figure Drawing VI (3). Work produced at the pre-BFA exhibition level. A strong cohesive body of figure drawings executed with a clear personal vision. Prerequisite: ART 4334C.

ART 4403C Printmaking IV (3). Instructional emphasis will be toward individual solutions. Student expected to independently research technical problems. Prerequisite: ART 3402C.

ART 4404C Printmaking V (3). Student must be showing independence in initiating and executing projects. Self motivation, energy and purpose should be the focus. Prerequisite: ART 4403C.

ART 4405C Printmaking VI (3). Advanced student will produce BFA exhibition work. Prerequisite: ART 4404C.

ART 4505C Painting IV (3). Advanced painting with expectation of highly skilled technique and carefully evolved concerns that might continue into subsequent semesters. Prerequisite: ART 3521C.

ART 4506C Painting V (3). Advanced painting toward coherent body of work. Prerequisite: ART 4505C.

ART 4524C Painting VI (3). Advanced painting. BFA exhibition quality body of work expected at this level.

ART 4532C Painting (3). An advanced course concentrating on conceptual clarity and the realization of stylistic development. Group, individual criticism will be emphasized. May be repeated. Prerequisites: ART 2500C or equivalent. Suggested prerequisites: ART 4505C and ART 4506C.

ART 4566C Fiber Based Painting II (3). Covers fiber based techniques as applied to the context of contemporary art practices. Prerequisite: ART 3565C.

ART 4618 Electronic Art (3). An introduction to electronic media for art students. Computer and video as tools for the artmaking process. Not a course in programming or commercial computer graphics.

ART 4636C Advanced Experimental Video Art (3). Advanced aesthetic, conceptual, and technical aspects of visual electronic media. Prerequisite: ART 3630C.

ART 4637 Independent Film Since 1960 (3). Examination of the structural and ideological attributes of narrative and documentary cinema, concentrating on alternatives to the studio system model. Viewing of selective history of independent film, and readings and discussions of theoretical texts.

ART 4714C Figure Sculpture IV (3). Advanced figure sculpture. Students develop skills in representational structure and anatomy from model and model-making techniques. Prerequisites: ART 3713C and ART 3763C or permission of the instructor.

ART 4715C Figure Sculpture V (3). Advanced figure sculpture continued. Student refines skills in representational structure and anatomy from model and mold-making techniques. Prerequisites: ART 3763C and ART 4714C or the permission of the instructor.

ART 4716C Figure Sculpture VI (3). Pre-thesis sculpture where students have refined their work to produce B.F.A. exhibition body of work. Prerequisite: ART 4715C.

ART 4732C Sculpture IV (3). First of a series of advanced classes which represent the beginning of a serious aesthetic commitment leading to a BFA degree. Prerequisite: ART 3710C.

ART 4734C Figure Sculpture (3). To develop skills in representational structure and anatomy from the model and learn mold-making techniques. May be repeated.

ART 4741C Sculpture V (3). This class is an extension of ART 4705 and should be used to further advance previous efforts with the intention of producing major finished works. Prerequisite: ART 4732C.

ART 4742C Sculpture VI (3). The goal of this class is to bring fully developed ideas to a finished state in preparation for BFA thesis exhibition. Prerequisite: ART 4741C.

ART 4766C Ceramics IV (3). Focuses on the development of a well produced, accomplished body of work that reflects the individual's ideas. Prerequisite: ART 3782C.

ART 4783C Ceramics V (3). Concentrates on a single ongoing project personally defined by the student and explored within the larger context of art history and contemporary society. Prerequisite: ART 4766C.

ART 4785C Ceramics VI (3). Concentrates on further refinement of technical skills, development of a consistent and cohesive body of work and a clear articulation of artistic conception. Prerequisite: ART 4783C.

ART 4842C Installation Art (3). This special topics course explores the genre of installation and site-specific art through history and in terms of its ongoing influence on contemporary visual culture.

ART 4906C Directed Study (VAR). A group of students, with the approval of the art faculty, may select a master artist teacher and pursue a course of art study in selected areas such as graphic design, film, multi-media, environmental design, sound, etc. Arrangements must be made at least one semester before course is offered. May be repeated.

ART 4910C Research (1-6). Students may study or research an individual art project with an art faculty member. Complexity and amount of work will determine the number of credit hours granted. May be repeated.

ART 4945 Art Gallery and Display (1-3). The study and participation of all aspects of gallery operations, from daily operation to special exhibitions and events. Permission of the Gallery Director.

ART 4949C Cooperative Education in Visual Arts (3). See ART 3949C.

ART 4952C Thesis I. The course will expose students to fundamental issues and ideas current in the field of art. An inquiry into the structure of art and its relationship to society, knowledge, and the self. Prerequisites: 15-18 hours of studio major and permission of the instructor (portfolio review).

ART 4953C Thesis II (3). Studio work in student's major area with major professor, resulting in a student exhibit. Arrangements with major professor one semester before

graduation. Written thesis required. Prerequisites: Fall and Spring only and ART 4952C.

ART 5135C Graduate Fibers (3). Graduate level studio course, explores issues of the fiber medium and its context in contemporary art practice. Prerequisite: Fiber Based Painting ART 5565C.

ART 5159C Jewelry and Metals (3). Advanced jewelry & metalwork. May be repeated. Prerequisites: Permission of the instructor or ART 4156C. For graduate students.

ART 5390C Drawing (3). Advanced drawing. May be repeated. Prerequisites: ART 4315C, or equivalent, or permission of the instructor. For graduate students.

ART 5391C Figure Drawing (3). Advanced figure drawing. May be repeated. Prerequisites: ART 4333C, or equivalent, or permission of the instructor. For graduate students.

ART 5408C Printmaking (3). Advanced printmaking. May be repeated. Prerequisites: ART 4404C, or equivalent or permission of the instructor. For graduate students.

ART 5580C Painting (3). Advanced painting. May be repeated. Prerequisites: ART 4524C or equivalent, or permission of the instructor. For graduate students.

ART 5685C Advanced Time Art (3). Advanced course to refine students' skills in electronic and digital media production. Students are required to produce a multidisciplinary project. Prerequisite: ART 3681C. For graduate students. May be repeated.

ART 5740C Sculpture (3). Advanced sculpture. May be repeated. Prerequisites: ART 4741C or equivalent, or permission of the instructor. For graduate students.

ART 5790C Ceramics (3). The graduate student will explore all aspects of expression in clay and glaze. Students will be expected to be mostly self-directed. Prerequisites: ART 4785C, or permission of the instructor. May be repeated. For graduate students.

ART 5792C Figure Sculpture (3). Advanced figure sculpture. May be repeated. Prerequisites: ART 4716C or permission of the instructor. For graduate students.

ART 5815C Graduate Seminar: Body and Art (3). Focuses on the relationship between the body, materials and space as used in art and exhibitions and examines the social conventions that order our understanding of these issues. Prerequisite: Graduate standing.

ART 5844C Installation Art (3). Explores the genre of installation art and site-specific art through history and provides a context for collaboration with the Wolfsonian Museum as both site and subject for art specific installation by students. Prerequisite: Permission of the instructor.

ART 5855 Graduate FIU in New York (3). A study of New York's art world and contemporary artists in New York City.

ART 5907C Directed Study (VAR). A course of study in a selected area under the supervision of an appropriate faculty member. Mandatory for MFA students in semester of graduation. Advanced approval by faculty and graduate advisory required (3cr). May be repeated.

ART 5910C Research (1-6). Graduate students may study or research an individual art project with an art faculty member. Complexity and amount of work will determine the number of credit hours granted. May be repeated.

ART 5930C Special Topics in Studio Art (3). Rotating special topics in studio arts. May be repeated with change of content. For graduate students.

ART 5938C Studio Art Pedagogy (1). Instruction in the principles and methods of teaching in the area of visual arts; specifically the application of these principles to the studio situation. Required for MFA students. Prerequisite: Graduate standing.

ART 5939C Graduate Art Seminar I (3). Graduate students will locate and discuss their own work within the context of the contemporary art world. Also, issues and practical concerns for the professional artist will be addressed, such as dealing with galleries, grant writing and business procedures. Required for MFA students. Prerequisite: Graduate standing.

PGY 2110C Color Photography I (3). An introduction to color materials and processing. Frequent critiques of students' work. Prerequisites: PGY 4412C or permission of the instructor.

PGY 2401C Photography I (3). Introduction to the practice of still photography. Includes darkroom work and camera skills. Frequent critiques of student work.

PGY 3111C Color Photography II (3). Intermediate color photography requiring refinement of technique and personal vision. Frequent critiques. Prerequisite: PGY 2110C.

PGY 3410C Photography II (3). Intermediate photography requiring refinement of technical skills and personal vision. Frequent critiques. Prerequisite: PGY 2401C.

PGY 3411C Photography III (3). Continuing development of skills and personal portfolio projects. Frequent critiques. Prerequisite: PGY 3410C.

PGY 4112C Color Photography III (3). Advanced color photography with an expectation of highly skilled technical and carefully evolved concerns that may continue in subsequent semesters. Prerequisite: PGY 3111C.

PGY 4113C Color Photograpy IV (3). Advanced color photography with portfolio and exhibition project for BFA exhibition. Prerequisite: PGY 4112C.

PGY 4412C Photography IV (3). Advanced photography with the expectation of highly skilled technique and a carefully evolved project that might continue into subsequent semesters. Prerequisite: PGY 3411C.

PGY 4413C Photography V Advanced (3). Advanced photography for project and portfolio continuation suitable for BFA exhibition. Prerequisite: PGY 4412C.

PGY 4440C Collaboration in Photography (3). An advanced photography course for majors and accomplished non-majors. Includes introduction to collaborative genres, slide/lectures, demonstrations, field work and intensive critique of student's work. Prerequisites: PGY 3410C and PGY 4412C.

PGY 5425C Photography (3). Advanced photography May be repeated. Prerequisites: PGY 4113C, or equivalent, or permission of the instructor. For graduate students.

PGY 5530C Color Photography (3). Advanced color photography. Prerequisites: PGY 4112C or permission of the instructor. For graduate students.

School of Music

Kathleen L. Wilson, *Director and Professor*
Javier Arias, *Instructor, Amernet String Quartet*
John Augenblick, *Associate Professor and Coordinator, Vocal/Choral Studies*
Kristine H. Burns, *Associate Professor*
Gary Campbell, *Associate Professor*
David Dolata, *Assistant Director and Associate Professor*
Robert Davidovici, *Professor*
Robert B. Dundas, *Associate Professor and Coordinator, Voice/Opera Studies*
Karen Fuller, *Assistant Professor and Coordinator, Performing Arts Management*
Joel Galand, *Associate Professor and Director of Graduate Studies*
Orlando J. Garcia, *Professor and Coordinator, Music Composition*
Kemal Gekić, *Professor*
Roby George, *Associate Professor and Coordinator, Winds, Brass and Percussion Studies*
James Hacker, *Instructor*
Fredrick Kaufman, *Professor*
Kathleen Kerstetter, *Assistant Professor, Music Education*
Michael Klotz, *Instructor, Amernet String Quartet*
Marcia Littley de Arias, *Instructor, Amernet String Quartet*
José López, *Assistant Professor and Coordinator, Keyboard Studies*
Sam Lussier, *Assistant Professor and Coordinator, Jazz Studies*
Clair McElfresh, *Professor Emeritus*
Michael Orta, *Associate Professor*
Carlos Riazuelo, *Associate Professor and Coordinator, String/Orchestral Studies*
Joseph Rohm, *Associate Professor*
Arturo Sandoval, *Professor*
Misha Vitenson, *Instructor, Amernet String Quartet*

Freshman/Sophomore Admission

Freshman admission requires an audition and placement test in Music Theory. Contact the School of Music at (305) 348-2896 for an audition appointment.

Transfer Admission

To qualify for admission to the program, FIU undergraduates must meet all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Music students at the University come from a wide variety of academic backgrounds from Florida, other states and countries. Because of this diversity, the faculty of music gives basic preliminary examinations in order to assist the student to eliminate any deficiencies:
1. Music History - consisting of all periods of history.
2. Music Theory - consisting of sightsinging, melodic and harmonic dictation and written harmonization and analysis.

Common Requirements for All Degrees:

University Core Curriculum[1]		33
Music Theory		
MUT 1111	Music Theory I	3
MUT 1112	Music Theory II	3
MUT 2116	Music Theory III	3
MUT 2117	Music Theory IV	3
Sightsinging		
MUT 1221	Sightsinging I	1
MUT 1222	Sightsinging II	1
MUT 2226	Sightsinging III	1
MUT 2227	Sightsinging IV	1
Music History		
MUH 3211	Music History Survey I	2
MUH 3212	Music History Survey II	2
MUH 3213	Music History Survey III	2
MUH 3214	Music History Survey IV[2]	2
Ethnomusicology		
MUH 3052	Music of the World	3
Class Piano[3]		
MVK 1111	Class Piano I	1
MVK 1112	Class Piano II	1
MVK 2121	Class Piano III	1
MVK 2122	Class Piano IV	1
Applied Lessons		
Applied Lessons		8
Music Technology		
MUC 1342	MIDI Technology	2
Conducting		
MUG 4101	Basic Conducting	1
Recital Attendance		
MUS 1010	Recital Attendance is required each Semester enrolled in applied lessons at the freshman/sophomore level	0
MUS 3040	Recital Attendance is required each semester enrolled in applied lessons at the junior/senior level	0
	Total	**75**

[1] The 3-credit UCC Arts Requirement is waived for music majors, reducing their UCC credits to 33.

Bachelor of Music

Degree Program Hours: 130

A Bachelor of Music degree is offered with an emphasis in one or more of the following areas: Applied Music, Composition, Jazz Studies, Music Technology, and Music Education.

All entering students must provide evidence of performance ability (vocal or instrumental) through an audition. Contact the School of Music at (305) 348-2896 for more information or to schedule an audition.

Areas of Emphasis

The following are areas of emphasis for music students. Admission to each area is by faculty approval.

Instrumental Performance

Required Courses
Music Theory

[2] Jazz Performance majors replace MUH 3214 Music History Survey IV with MUH 3813 History of Afro-Cuban Jazz.

[3] Jazz piano majors take four credits (two years) of Classical Applied Piano instead of Class Piano. With a passing grade on the Piano Proficiency Exam, Piano and Organ majors may substitute 4 semesters of MUN 2510 Accompanying for Class Piano.

MUT 3611	Form and Analysis	3
MUT 3401	Counterpoint	3
MUT 4311	Orchestration	3
Ensembles		
One major ensemble every semester enrolled in lessons[4]		8
Major Applied		
Four semesters 3 credits each semester		12
Conducting		
MUG 4302	Instrumental Conducting	1
Recitals		
Junior Recital		1
Senior Recital		1
Electives		
Music Electives		21
	Total	**53**

Vocal Performance

Required Courses

Music Theory		
MUT 3611	Form and Analysis	3
MUT 3401	Counterpoint	3
Ensembles		
For each semester of lower division applied voice 1cr. hour of "major choral ensemble" (MUN 1310 or MUN 1340) as assigned by Director of Choral Studies plus one credit of minor ensemble as assigned by Director of Vocal Studies		8
For each semester of upper division applied voice 1cr. hour of "major applied ensemble" (MUN 3313 or MUN 3343) as assigned by the Director of Choral Studies		4
Major Applied Lessons		
Four semesters 3 credits each semester		12
Conducting		
MUG 4202	Choral Conducting	1
Recitals		
MVV 3970	Junior Recital	1
MVV 4971	Senior Recital	1
Diction for Singers		
MUS 2201	Diction I	2
MUS 2202	Diction II	2
Vocal Pedagogy		
MVV 3630	Vocal Pedagogy	2
Opera Workshop		
MUO 4502	Opera Workshop per semester of upper division applied voice	4
Electives (chosen in consultation with area advisor)		
Music Electives		10
	Total	**53**

Composition

Required Courses

Music Theory		
MUT 3401	Counterpoint	3
MUT 3611	Form and Analysis	3
MUT 4311	Orchestration	3
Ensembles		
Lower level – 4 credits (1 per semester freshman and sophomore years to be selected by principal instrument/voice area director		4
Upper level – 4 credits (Junior and senior years 2 Semesters of New Music Ensemble; others to be selected by principal instrument/voice area director		4
Conducting		
MUG 4202	Choral Conducting	1
	or	
MUG 4302	Instrumental Conducting	1
Principal Applied		
Four semesters, 1 credit each semester		4
Composition		
MUC 2221	Composition I	2
MUC 2222	Composition II	2
MUC 3231	Composition III	2
MUC 3232	Composition IV	2
MUC 4241	Composition V	2
MUC 4932	Composition Forum – 4 semesters	4
Electronic Music		
MUC 2301	Electronic Music Lab I	2
MUC 3302	Electronic Music Lab II	2
Recitals[5]		
MUS 4910	Research (Composition Recital)	1
Senior Recital		1
Electives		
Music Theory/History Elective		3
Music Electives		8
	Total	**53**

Minor in Music Composition

A minor in composition is available for students receiving the BM degree in areas of studies other than composition (e.g. jazz studies, applied, music education). In order to receive credit for a minor in composition students must successfully complete the following:

Required Courses

Music Theory		
MUT 3611	Form and Analysis	3
MUT 4311	Orchestration	3
MUT 3401	Counterpoint	3
Composition (beyond Basic Music Composition)		
MUC 2221	Composition I	2
MUC 2222	Composition II	2
Electronic Music		
MUC 2301	Electronic Music I	2
MUC 3302	Electronic Music II	2
Composition Forum		
MUC 4932	Composition Forum (2 semesters)	2
Ensemble		
MUN 2490	New Music Ensemble (1 semester)	1
	Total	**20**

Jazz Performance

[4] See Advisor for additional area ensemble and chamber music requirements as mandated by the FIU School of Music Handbook.

[5] Composition students must present a 45 minute recital of their work and a 30 minute performance recital. A final oral exam administered after the composition recital must also be successfully completed. Composition students must earn a "B" or better in all theory, composition, and electronic music courses.

Required Courses

Music Theory

MUT 4311	Orchestration	3
MUT 4353	Jazz Arranging	2
MUT 2641	Jazz Improvisation I	2
MUT 2642	Jazz Improvisation II	2
MUT 4643	Jazz Improvisation III	2
MUT 4644	Jazz Improvisation IV	2
MUT 4663	Jazz Styles and Analysis	2
MUH 2116	Evolution of Jazz	3

Ensembles

Two credits each semester	16

Major Applied Lessons[6]

Four semesters major jazz applied	12

Conducting

MUG 4202	Choral Conducting	1
	or	
MUG 4302	Instrumental Conducting	1
MUN 4784	Jazz Rehearsal Techniques	1

Recitals

MVJ 3970	Junior Jazz Recital	1
MVJ 4971	Senior Jazz Applied Recital	1

Commercial/Jazz

MUM 4301	Business of Music	3
MUH 1018	Intro to Jazz Studies	2
	Total	**55**

Piano Performance

Required Courses

Music Theory

MUT 3611	Form and Analysis	3
MUT 3401	Counterpoint	3

Music History

MUL 4400	Keyboard Literature I	3
MUL 4401	Keyboard Literature II	3

Ensembles

Major ensembles (2 semesters)		2
Ensembles assigned by Director of Piano Studies		6
MUN 2510	Accompanying (four semesters)	4
MUN 4513	Accompanying (four semesters)	4

Major Applied Lessons

Four semesters 3 credits each semester	12

Pedagogy

MVK 4640	Piano Pedagogy	2

Recitals

Junior Recital	1
Senior Recital	1

Electives

Music Electives	9
Total	**53**

Organ Performance

Required Courses

Music Theory

MUT 3611	Form and Analysis	3
MUT 3401	Counterpoint	3

Music History

MUL 4490	Organ Literature	3

Ensembles

Major Ensembles (6 semesters)		6
MUN 2510	Accompanying (4 semesters)	4
MUN 4513	Accompanying (4 semesters)	4
MUN 3463	Chamber Music (two semesters)	2

Major Applied Lessons

Four semesters 3 credits each semester	12

Pedagogy

MVK 4640	Piano Pedagogy	2

Recitals

MVK 3970	Junior Applied Recital	1
MVK 4971	Senior Applied Recital	1

Electives

Music Electives	12
Total	**53**

Music Technology

Required Courses

Music Technology

MUC 2301	Electronic Music Lab I	2
MUC 3302	Electronic Music Lab II	2
MUC 3400	Electronic Music Lab III	2
MUC 4404	Electronic Music Lab IV	2
MUS 4910	Senior Research Project	4
MUM 4940	Senior Internship	9

Ensembles

Major ensemble for four semesters	4
Upper division ensemble to be determined by performance	2
Faculty for two semesters	

Principal Applied Lessons

Two semesters, 2 credit each semester	4

Physics of Music

PHY 3465	Physics of Music	3

Computer Science

CS Electives selected in consultation with Advisor	6

Electives

Music Electives	13
Total	**53**

Bachelor of Arts

Degree Program Hours: 128

The Bachelor of Arts degree is a flexible research-based multidisciplinary degree. In consultation with faculty advisors, students craft a plan of study tailored to their own particular musical interests, which may also be combined with areas outside of music.

Required Courses

Music Theory/History Electives	9
Ensembles	4
Bibliography	2
Foreign Language	10
Senior Research	4
Cognate Area	12
Electives	15

Entrance Requirements

1. Successful instrumental or vocal audition
2. Students must pass the Fundamentals Course with a

[6] Piano majors take four credits (two years) of Classical Applied Piano instead of Class Piano. Drummers Entering without Classical Applied Percussion take four credits (two years) of Classical Applied Percussion. Electric Bass Majors will take two credits (one year) of Applied String Bass.

minimum grade of "C" or be placed into Theory I prior to taking any academic music courses.

Exit Requirements
Successful completion of Senior Research Project

Bachelor of Science in Music Education: Grades K-12

Degree Program Hours: 137-139

The Bachelor of Science in Music Education degree is offered by the School of Music, within the College of Architecture and The Arts. **Application for this major must be made to the School of Music before admittance. An audition, theory, and piano placement exams are required prior to admittance.** Any questions concerning this degree should be directed to the Music Education Program Director 305-348-2896.

Required Courses

Applied Music Lessons
Music Education majors are required to take one credit each semester of the junior year, and one credit the semester when not Student Teaching in the senior year — 3

Senior Recital
Music Education majors present their Senior Recital in the senior semester when not Student Teaching — 1

Ensembles
One major ensemble each semester. Music Education majors are not required to take ensembles while Student Teaching. Music education majors whose area of performance is either Percussion or Winds are required to take MUN 1100 Golden Panther Band (only offered in the fall) at least one time in addition to the previous requirement — 8/9

Professional Foundation in General Education

EDF 1005	Introduction to Education	3
EDG 2701	Teaching Diverse Populations	3
EDG 3321	Instructional Decision Making	3
EDG 3004	Educational Psychology	3
EDF 3201	History of Education	3
TSL 4324	ESOL	3
RED 4325	Reading	3
EDP 3218	Classroom Management	3
EEX 3071	Exceptional Education Studies	3

Conducting

MUG 4202	Instrumental Conducting	1
	or	
MUG 4301	Choral Conducting	1

Music Education Techniques

MVV 1111	Class Voices I	1
MVV 3630	Vocal Pedagogy	2
MUE 2450	Woodwind Techniques	1
MVS 1116	Guitar Skills	1
MUE 2440	String Techniques	1
MUE 2460	Brass Techniques	1
MUE 2470	Percussion Techniques	1

AND

Professional Foundation in Music Education

(Choral and Instrumental)

MUE 3340	Elementary Music Methods	3
MUE 4341	Secondary Music Methods	3
MUE 4940	Student Teaching in Music Education	9

Note: MUE 4940 is taken the semester following MUE 3340 and MUE 4341.

Total 63/64

Course Descriptions

Definition of Prefixes
HUM-Humanities; MUC-Music: Composition; MUE-Music: Education; MUG-Music: Conducting; MUH-Music: History/Musicology; MUL-Music: Literature; MUM-Music: Commercial; MUN-Music: Ensembles; MUS-Music; MUT-Music: Theory; MVB-Applied Music/Brass; MVK-Applied Music-Keyboard; MVJ-Applied Music/Jazz; MVP-Applied Music/Percussion; MVS-Applied Music/Strings; MVV-Applied Music/Voice; MVW-Applied Music/Woodwinds.

MUC 1101 Basic Music Composition (1). Elementary principles of composition including the performance of composition projects. Course includes calligraphy and notation skills. Course may be repeated for credit. Prerequisites: Freshman music majors; permission of the instructor.

MUC 1342 Introduction to MIDI Technology (2). Introduction to the MIDI protocol and MIDI-based software, including music notation, sequencing, patch editing, ear training, and keyboard skills software. Prerequisites: Music major or permission of the instructor.

MUC 2221 Composition Seminar I (2). Creative writing utilizing 20th-century compositional techniques in Impressionism, Neoclassicism, Post-Webern Serialism, Indeterminacy, Minimalism, Mixed, Multi and Inter-media, etc. Prerequisite: MUT 1112. Corequisite: MUT 2116.

MUC 2222 Composition Seminar II (2). Continuation of MUC 2221. Prerequisite: MUC 2221. Corequisite: MUT 2117.

MUC 2301 Electronic Music Lab I (2). Exploration of the electronic medium including the history of electronic music, digital studio techniques, analog studio techniques, digital synthesis and analog synthesis. Prerequisite: MUC 1342.

MUC 3231 Composition III (2). A continuation of Composition I to further the development of students compositional abilities through the writing of more evolved works with regard to duration, instrumentation. Prerequisites: MUC 2222 and admission to composition area.

MUC 3232 Composition IV (2). Continuation of MUC 3231. Prerequisite: MUC 3231.

MUC 3302 Electronic Music Lab II (2). A continuation of Electronic Music Lab I with an emphasis on advanced MIDI applications including samplers, digital sequencing, digital signal processing and interactive MIDI software. Includes one large composition project. Prerequisite: Electronic Music Lab I.

MUC 3400 Electronic Music Lab III (2). Special projects in advanced computer music programming focusing on sound synthesis. Includes two large composition projects. Can be repeated four times. Prerequisites: Electronic Music Lab II and permission of the instructor.

MUC 4241 Composition V (2). Continuation of MUC 3232. Prerequisite: MUC 3232.

MUC 4242 Composition VI (2). Continuation of MUC

4241. Prerequisite: MUC 4241.

MUC 4404 Electronic Music Lab IV (2). An advanced course in computer and electronic music providing students with hands-on experience with new hardware and software for the creation of music. Prerequisites: MUC 2301, MUC 3302.

MUC 4932 Composition Forum (1). Student composers' works are critiqued by faculty; topics of interest to composers are discussed. Required of all students taking Composition III and higher. Prerequisite: Admission to Composition Program.

MUC 5406 Electronic Music IV (2). An advanced course in computer music providing students hands-on experience with recently developed hardware and software for the creation of music. Prerequisite: MUC 3400.

MUC 5407 Electronic Music V (2). Students develop new hardware and/or software for uses related to musical composition. Prerequisite: MUC 5406.

MUC 5635 Computer Music Seminar I (3). Introduces students to the historical contributions of computer music composers and engineers. Prerequisites: MUC 6305, MUC 6306. Corequisite: MUC 6405.

MUC 5636 Computer Music Seminar II (3). Introduces students to the compositional procedures used by computer music composers. Prerequisites: MUC 6305, MUC 6306, MUC 6405. Corequisite: MUC 5406.

MUC 5637 Computer Music Seminar III (3). Introduces students to the research technologies for making interactive sound projects including installations and exhibits. Prerequisites: MUC 6305, MUC 6306, MUC 6405, MUC 5406.

MUC 5935 Composition Forum (1). Student composers present their work for critique by faculty and topics relevant to composition are presented by faculty and guests. Prerequisite: Admission into the graduate composition program.

MUE 2440C String Techniques (1). Class instruction of string instruments; tuning and care of instruments; teaching techniques, fingerings, bowings; violin, viola, cello, and double bass.

MUE 2450C Woodwind Techniques (1). Class instruction of woodwind instruments; tuning and care of instruments. Teaching techniques. Single reed instruments, double reed instruments, and flute. Class one hour, laboratory one hour.

MUE 2460C Brass Techniques (1). Class instruction of brass instruments; tuning and care of instruments. Teaching techniques. Piston and valve instruments, French horn, and trombone. Class one hour, laboratory one hour.

MUE 2470C Percussion Techniques (1). Class instruction of percussion instruments; sticking techniques; care of instruments; teaching techniques. Drum and mallet instruments. Class one hour, laboratory one hour.

MUE 3340 Elementary School Teaching Methods (3). Development of instructional skills, techniques, and strategies for elementary school classroom music for the music teacher. Laboratory and field work required.

MUE 3921 Choral Conducting Workshop (3). The study of various topics related to choral literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 3922 String Workshop (3). The study of various topics related to string literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 3923 Instrumental Conducting Workshop (3). The study of various topics related to instrumental ensemble literature, conducting, and techniques. Prerequisite: Permission of the instructor.

MUE 3924 Jazz Workshop (3). The study of various topics related to jazz literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 4480 Marching Band Techniques (3). A study of show design and concepts; marching band management and organizational procedures including booster organizations, inventory, handbooks, grading procedures and rehearsal fundamentals. Prerequisite: Permission of Instructor.

MUE 4940 Student Teaching in Music Education (9). Supervised teaching in an elementary and secondary school. Prerequisite: Admission to the program.

MUE 5485 Marching Band Techniques (3). A study of show design and concepts; marching band management and organizational procedures including booster organizations, inventory, handbooks, grading procedures, rehearsal techniques. Prerequisite: Permission of Instructor.

MUE 5921 Choral Conducting Workshop (3). The study of various topics related to choral literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5922 String Workshop (3). The study of various topics related to string literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5923 Instrumental Conducting Workshop (3). The study of various topics related to instrumental ensemble literature, conducting, and techniques. Prerequisite: Permission of the instructor.

MUE 5924 Jazz Workshop (3). The study of various topics related to jazz literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5928 Workshop in Music (3). Applications of materials and techniques in music in a laboratory or field setting.

MUG 4101 Basic Conducting (1). A basic conducting course to gain fundamental technique and interpretation. A prerequisite for both advanced instrumental and choral conducting.

MUG 4202 Choral Conducting (1). With a background in basic theory, and having performed in ensembles, the student will develop techniques of group conducting including madrigal, glee, choir, etc. A survey of choral literature will be included. Prerequisite: MUG 4101.

MUG 4302 Instrumental Conducting (1). With a background in basic theory, and having performed in ensembles, the student will develop a knowledge of baton technique, score reading, and interpretation. Prerequisite: MUG 4101. Corequisites: Orchestra or wind ensemble or both.

MUG 5105 Advanced Conducting Techniques (1). An extension of form and analysis, with interpretation both in instrumental, and choral conducting. Twentieth-century scoring and symbol interpretation will be studied in depth, with actual conducting experience required.

MUG 5205 Graduate Applied Choral Conducting (2). Advanced study of choral conducting, including gesture, rehearsal techniques, and repertoire. Prerequisites: Graduate standing and permission of the instructor.

MUG 5307 Graduate Applied Wind Conducting (2). Advanced study of wind conducting, including gesture, rehearsal techniques, and repertoire. Prerequisites: Graduate standing and permission of the instructor.

MUG 5935 Conducting Seminar (1). An examination of the principal issues of conducting, emphasizing score reading and study, rehearsal, interpretation, and contemporary techniques. Prerequisites: Graduate standing and/or permission of the instructor.

MUH 1011 Music Appreciation (3). Lives and creations of great composers in various periods of history. A multi-media course.

MUH 1018 Introduction to Jazz Studies (2). An introductory study of jazz music and musicianship. Required of all students who have been accepted into the Commercial/Jazz Studies program.

MUH 1560 African American Music (3). Examines the historical influence and development of African American music from its African roots to its dominance in the American popular culture.

MUH 2116 Evolution of Jazz (3). A history course that surveys jazz styles from mid-19th century to the present. A sociological and musical look at jazz, the personalities and their experience.

MUH 3019 History of Popular Music in the U.S. (3). Overview of Afro-American and Euro-American popular music and its historical development. Examination of musical style and social context in lecture-discussion format with film and video.

MUH 3052 Music of the World (3). Survey of folk, popular and classical musical traditions from around the world. Examination of musical style and social context with film and performance demonstrations.

MUH 3060 Latino Music in the United States (3). Survey of Latin American musical tradition brought through immigration. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 3061 Music of Mexico and Central America (3). A survey of folk, popular and classical musical traditions in the region. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 3062 Music of the Caribbean (3). Survey of folk, popular and classical musical traditions and their ongoing connection with Caribbean populations in the U.S. Class includes film and performance demonstrations.

MUH 3073, 5075 Women in Music (3). Introduces students to women musicians including performers, composers, and researchers in all genres.

MUH 3211 Music History Survey I (2). A survey of music from antiquity to 1600. Lectures on historical styles will be supplemented with recordings and musical analysis. Prerequisites: Permission of the instructor.

MUH 3212 Music History Survey II (2). A survey of music from 1600 to 1800. Lectures on historical styles will be supplemented with recordings, and musical analysis. Prerequisites: MUH 3211 or permission of the instructor.

MUH 3213 Music History Survey III (2). A survey of music from 1800 to 1945. Lectures on historical styles will be supplemented with recordings and musical analysis. Prerequisites: MUH 3211 and MUH 3212 or permission of the instructor.

MUH 3214 Music History Survey IV (2). The fourth semester of the music history sequence covers the history of music from 1945 to the present, and includes the detailed study of its literature through critical listening and analysis. Prerequisite: Music majors.

MUH 3541 Music of Latin America: Folklore and Beyond (3). An overview of the orchestral, chamber, solo, vocal, and electronic music from Latin America written in the 20th century and its relationship to the folk music of the region.

MUH 3570 Survey of Asian Music (3). Examines the major Asian musical traditions within the cultural framework of history, arts, and traditions.

MUH 3801 Jazz History (2). An in-depth study of jazz music from its inception to the present day. Specifically designed for music majors, in particular Jazz Studies students. Prerequisites: MUT 1112, MUT 1222.

MUH 3813 History of Afro-Cuban Jazz (2). A study of the history and evolution of Afro-Cuban Jazz, including Cuban popular music and traditional dance forms, folkloric music of African origin, influences from American popular music and early American Jazz, as well as other music from the Caribbean. Prerequisite: MUH 2116.

MUH 4341 Music of the Baroque Period (3). Survey of the major genres, styles, and composers of the Baroque period within the wider context of Baroque aesthetics and culture. Introduction to Baroque performance practice. Prerequisites: MUH 3211, MUH 3212.

MUH 4680 Music History Seminar I (2). Emphasizes both historical and theoretical analysis. Scholarly work under faculty direction, develops written skills and research methods. Written project required. Prerequisites: MUH 3211, MUH 3212, and permission of the instructor.

MUH 4681 Music History Seminar II (2). Emphasizes both historical and theoretical analysis. Scholarly work under faculty direction, develops written skills and research methods. Written project required. Prerequisites: MUH 4680 or permission of the instructor.

MUH 4682 Music History Seminar III (2). Emphasizes both historical and theoretical analysis. Scholarly work under faculty direction, develops written skills and research methods. Written project required. Prerequisite: MUH 4681.

MUH 4683 Music History Seminar IV (2). Emphasizes both historical and theoretical analysis. Scholarly work under faculty direction, develops written skills and research methods. Written project required. Prerequisite:

MUH 4682.

MUH 5025 History of Popular Music in the U.S. (3). Overview of Afro-American and Euro-American popular music and its historical development. Examination of musical style and social context in lecture-discussion format with film and video.

MUH 5057 Music of the World (3). Survey of folk, popular and classical musical traditions from around the world. Examination of musical style and social context with film and performance demonstrations.

MUH 5065 Latino Music in the United States (3). Survey of Latin American musical traditions brought through immigration. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 5066 Music of Mexico and Central America (3). A survey of folk, popular and classical musical traditions in the region. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 5067 Music of the Caribbean (3). Survey of folk, popular and classical musical traditions and their ongoing connection with Caribbean populations in the U.S.. Class includes film and performance demonstrations.

MUH 5345 Musical Style and Practice in the Baroque Era (3). Detailed treatment of the genres, styles, and composers of the Baroque period within the wider context of Baroque aesthetics and culture. Exploration and application of Baroque performance practice.

MUH 5546 Music of the Americas (3). An exploration of the folk, popular, and art music of Latin America.

MUH 5575 Survey of Asian Music (3). Examines the major Asian musical traditions within the cultural framework of history, arts, and traditions.

MUH 5685 Graduate Music History Review I (1-3). Examination of music history achievements from Antiquity through the Renaissance. Musical structures and composers from these eras are studied through lectures supplemented by recordings and musical analysis. Prerequisites: Graduate standing and permission of the instructor.

MUH 5686 Graduate Music History Review II (1-3). Examination of music history achievements of the Baroque and Classical eras. Musical structures and composers from these eras are studied through lectures supplemented by recordings and musical analysis. Prerequisites: Graduate standing and permission of the instructor.

MUH 5687 Graduate Music History Review III (1-3). Examination of music history achievements from the Romantic era to the present. Musical structures and composers from these eras are studied through lectures supplemented by recordings and musical analysis. Prerequisites: Graduate standing and permission of the instructor.

MUH 5688 Graduate Music History Review IV (2). The fourth semester of the music history sequence covers the history of music from 1945 to the present, and includes the detailed study of its literature through critical listening and analysis. Prerequisite: Music majors.

MUH 5815 Jazz History: The Innovators (3). The work of four artists whose innovations have profoundly defined the jazz idiom from its beginning through the present day- Duke Ellington, Charlie Parker, Miles Davis, and John Coltrane.

MUL 4400 Keyboard Literature I (3). Study of solo works for the keyboard from historical beginnings to 1828. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works. Prerequisites: MUH 3211, MUH 3212.

MUL 4401 Keyboard Literature II (3). Study of solo works for the keyboard from 1828 to the present. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works. Prerequisite: MUL 4400.

MUL 4490 Survey of Organ Literature (3). Survey of organ literature, history, performance practice, and organ design. Includes historic sound recordings. Prerequisite: Permission of instructor.

MUL 4500 Symphonic Literature (3). Survey of symphonic literature from the 17th century to present day. Analysis and illustrations of representative works. Prerequisites: MUH 3211, and MUH 3212.

MUL 4602 Vocal Literature I (2). A survey of solo vocal literature from the Renaissance, Baroque, and Classical periods. Corequisite: MUS 2241.

MUL 4604 Vocal Literature II (2). A survey of the German Lied and its poetry. Corequisite: MUS 2231.

MUL 4605 Vocal Literature III (2). A survey of the French Melodie and its poetry. Corequisite: MUS 2221.

MUL 4608 Vocal Literature IV (2). A survey of solo vocal literature of the twentieth century. Corequisite: MUS 2211.

MUL 4630 Symphonic/Chamber Vocal Literature (1). Corequisites with MUL 4500 Symphonic Literature. A practicum surveys Symphonic & Chamber vocal music from 17th Century to present day. Includes selection of personal repertory and ensemble performance.

MUL 4662 History and Literature of Opera (3). Chronological survey of opera literature from the 17th century to present day. Analysis and performance of representative works. Prerequisites: MUH 3211 and MUH 3212.

MUL 5405 Keyboard Literature I (3). Study of solo works for the keyboard from historical beginnings to 1828. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works.

MUL 5406 Keyboard Literature II (3). Study of solo works for the keyboard from 1828 to the present. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works. Prerequisite: MUL 5405.

MUL 5456 Wind Instrument Literature (3). The history and development of Wind Instrument Literature from ca. 1650 to the present day. Music appropriate for all levels of instruction from middle school through college level is included. Prerequisite: Advanced/graduate standing.

MUL 5495 Survey of Organ Literature (3). Survey of organ literature, history, performance practice and organ design. Includes historic sound recordings and in-class

performance. Prerequisite: Permission of instructor.

MUL 5496 Organ Literature I (3). Survey of organ literature from antiquity to 1750 in the German, French, Italian schools.

MUL 5497 Organ Literature II (3). Survey of organ literature from 1750 to the present in the German, French, and American schools.

MUL 5607 Vocal Literature I (2). A survey of solo vocal literature from the 17th century to the late 18th century. Emphasis will be placed on a discussion of ornamentation and performance-practice and comparisons of editions.

MUL 5624 Vocal Literature II (2). The German Lied and its poetry. Emphasis will be placed on a study of the poets and their poetry, important facts of the composers' lives and times and other musical and cultural developments. Prerequisite: Graduate standing.

MUL 5625 Vocal Literature III (2). The French Melodie. Emphasis will be placed on a study of the poets and their poetry, their styles and schools, the composers' lives and times and other musical and cultural developments. Prerequisite: Graduate standing.

MUL 5626 Vocal Literature IV (2). Twentieth-century art song. Emphasis will be placed on the rise of the nationalist schools, the development of atonalism and other modern schools of thought.

MUL 5645 Choral Literature (3). A survey of sacred and secular choral literature from the Middle Ages to the present. Emphasis on stylistic analysis and performance practice for each style period. Includes score study, aural analysis of recorded performances and in-class performances. Prerequisite: Permission of the instructor.

MUL 5671 Opera Literature (3). A chronological survey of operatic literature from the 17th century to the present day. Emphasis placed on the historical milieu in which the operatic form evolved through the ages.

MUM 1401 Music Calligraphy (3). The correct procedures for music penmanship, the notation of notes and chords for music parts and scores.

MUM 3601 Audio Techniques I (3). Basic sound engineering, including the basic workings of P.A. equipment and the interplay between the various components.

MUM 3602 Audio Techniques II (3). Studio recording techniques, microphone placement, taping and mixing.

MUM 4301 Business of Music (3). Principles and practices of modern publishing techniques; copyright laws; wholesale and retail distribution of music. Performance rights; agreements and relations between producers directors, performers, writers, personnel managers, and booking agents. Prerequisite: Permission of the instructor.

MUM 4302 Business of Music II (3). Continuation of principles and practices of modern publishing techniques; copyright laws; wholesale and retail distribution of music. Performance rights; agreements and relations between producer, directors, performers, writers, personnel managers, booking agents. Prerequisite: MUM 4301.

MUM 4803 Grant Writing for the Arts (2). Designed to familiarize the student with the fundamental tools and techniques in writing a successful grant proposal for the arts. Focuses on the basics of grant writing, where to find funding sources and grant evaluation procedures.

MUM 4940 Music Internship (VAR). Practical experience utilizing music theory, composition, and history in the commercial music industry. The precise nature of the work will be determined in consultation with an advisor. Prerequisite: MUM 4302.

MUM 5705 Advanced Business of Music (3). Topics include strategic planning, employee development, and decision making. Also includes a study of publishing, collection agencies, creative unions, and contracts with composers and producers. Prerequisites: MUM 4301 and permission of graduate advisor.

MUM 5715 Performing Arts Production I (2). Focus on the various aspects of performing arts production. Students attend performances of every possible genre of performing arts and critique the production and the venue. Prerequisite: Permission of graduate advisor.

MUM 5725 Live Music Operations I (2). How promoters and producers project a profit margin and the ability to oversee a profit; considering overhead, scheduling, accommodations, concessions, sound and light. Prerequisite: Permission of the graduate advisor.

MUM 5726 Live Music Operations II (3). Continuation of MUM 5725, Live Music Operations I. Emphasis on promoters', producers', and managers' ability to project a profit margin. An on-campus production is required as the final project. Prerequisites: MUM 5725 and permission of the graduate advisor.

MUM 5795 Music Production Laboratory I (1). Students are assigned to work in the production of 10-15 individual concert productions. The productions are varied and provide the students the opportunity to put in practice work learned in the classroom. Prerequisite: Permission of the graduate advisor.

MUM 5796 Music Production Laboratory II (1). A continuation of Music Production Lab I. Students are assigned to work in the production of 10-15 individual concert productions. Prerequisites: MUM 5795 and permission of the graduate advisor.

MUM 5797 Music Production Laboratory III (1). A continuation of Music Production Lab II. Students are assigned to work in the production of 10-15 individual concert productions. Prerequisites: MUM 5796 and permission of the graduate advisor.

MUM 5808 Grant Writing for the Arts (2). Designed to familiarize the student with the tools and techniques in writing a successful grant proposal. Focuses on the perspective of the arts manager/administrator in relation to grant writing and grant management.

MUM 5809 Music Production Seminar (3). Explores issues and practical applications in the management of music centers, arts organizations and arts centers. Includes examination of local arts centers, local arts councils, music venues, performing arts venues, arts organizations, and arts service organizations. Prerequisites: Graduate standing or permission of instructor.

MUM 5946 Performance Arts Internship (9). Interns assist and/or observe in all job functions and duties at an

entertainment venue. Areas include: production management; design services; technical production; talent booking and casting; and creative show development. Prerequisite: Permission of graduate advisor.

MUN 1100, 4103, 5105 Golden Panther Band (1). A study and performance of pop, jazz, and rock musical selections for the instrumental medium. Students will demonstrate what they have learned by performing and through individualized playing examinations. Prerequisite: Permission of the instructor.

MUN 1120, 3123, 5125 Symphony Band (1). Concert Band ensemble for music majors on secondary instruments and non-music majors. Various types of concert band literature covered from differing grade levels. Course open to anyone who has previous experience playing a wind or percussion instrument.

MUN 1140, 4143, 5145 Symphonic Wind Ensemble (1). Readings and performances of wind ensemble music from the 18th century to the present. Open to wind and percussion instrumentalists. Prerequisite: Permission of conductor.

MUN 1210, 4213, 5215 Orchestra (1). An instrumental ensemble performing works from the symphonic repertory. Prerequisites: Previous experience and permission of conductor.

MUN 1310, 3313, 5315 Concert Choir (1). A choral ensemble performing music written and arranged for mixed voices. Prerequisite: Permission of the instructor.

MUN 1340, 3343, 5345 University Chorale (1). A mixed choir performing repertoire from Renaissance to Modern, as well as multicultural works. Prerequisite: Permission of conductor.

MUN 1380, 3383, 4380, 5385 Master Chorale (1). A chorus performing a repertoire primarily from great choral works. Large orchestral accompaniment as well as various instrumental ensembles will be utilized. Prerequisite: Permission of conductor.

MUN 1430, 3433, 5435 University Brass Choir (1). A study and performance of literature written for the brass medium (trumpet, horn, trombone, euphonium, and tuba) from the pre-baroque, baroque, classical, romantic and contemporary periods. May be repeated. Prerequisite: Permission of the instructor.

MUN 1460, 3463, 5465 Chamber Music (1). Small ensemble in the performing of chamber music literature. Prerequisite: Permission of conductor.

MUN 1471 Collegium Musicum (1). Collegium Musicum provides a forum for the study and performance of the musical literature of the Medieval, Renaissance, and Baroque eras. Prerequisite: Permission of the instructor.

MUN 1481, 2482, 3484, 4486 Jazz Guitar Ensemble (1). Ensemble consists of five or more electric guitars performing arrangements, accompanied by bass and drums. Emphasis placed on sight reading, styles, phrasing, dynamics, ensemble blend, swing, etc.

MUN 1710, 3713, 5715 Studio Jazz Ensemble (1). An ensemble to provide creative professional-level experience in the contemporary popular idiom. Permission of conductor.

MUN 1790 Latin Jazz Ensemble (1). An ensemble to provide creative professional-level experience in the salsa/Latin jazz idiom. Prerequisite: Permission of the instructor.

MUN 2240, 4243, 5245 String Ensemble (1). Performance of orchestra literature for large string ensembles. Prerequisite: Permission of instructor.

MUN 2320, 4323, 5325 Women's Chorus (1). A choral ensemble performing music written or arranged for women's voices. Prerequisite: Permission of the instructor.

MUN 2330, 4333, 5335 Men's Chorus (1). A choral ensemble performing music written or arranged for men's voices. Prerequisite: Permission of the instructor.

MUN 2440, 4443, 5445 Percussion Ensemble (1). A study and performance of music literature characteristic of the percussion ensemble. Prerequisite: Permission of the instructor.

MUN 2450, 4453, 5455 Piano Ensemble (1). The presentation and performance of music literature characteristic of piano and pianos in ensemble.

MUN 2480, 4483, 5485 Guitar Ensemble (1). The presentation and performance of music literature characteristic of the Guitar Ensemble. Prerequisite: Permission of conductor.

MUN 2490, 4493, 5496 New Music Ensemble (1). A chamber group of varying instrumentation and size performing art music from the 20th century with emphasis on music from the past 20 years. Explores electronics, multimedia works, etc. Prerequisite: Permission of the instructor.

MUN 2820, 4823, 5826 Latin American Music Ensemble (1). Study and performance of one or more folk and/or popular musical styles from Latin America.

MUN 2510, 4513, 5515 Accompanying (1). Accompanying instrumental and vocal students in studio and recital situations.

MUN 2711, 4714, 5716 Jazz Combo Class (1). Harmonic practice, formal procedures, rhythmic and improvisational practices of jazz performance in the small group. Prerequisite: Permission of conductor.

MUN 3474 Collegium Musicum (1). Collegium Musicum provides a forum for the study and performance of the musical literature of the Medieval, Renaissance, and Baroque eras. Sources research and programming are an additional component. Prerequisite: Permission of the instructor.

MUN 4784, 5785 Jazz Ensemble Rehearsal Techniques (1). An ensemble that provides its members a creative approach to jazz ensemble rehearsal techniques, literature, improvisation and related materials. Prerequisite: Permission of the instructor.

MUN 5477 Collegium Musicum (1). Collegium Musicum provides a forum for the study and performance of the musical literature of the Medieval, Renaissance, and Baroque eras. Participation in the composition of program notes and rehearsal direction are additional components. Prerequisite: Permission of the instructor.

MUO 1501, 4502, 5505 Opera Workshop (1). The presentation and performance of music literature

indigenous to the opera stage. Prerequisite: Permission of director.

MUO 2001 Music Theater Workshop-Voice (2). Introduction to musical comedy performance; integration of dramatic, musical and movement components studied through work on selected scenes and songs. Particular emphasis on vocal training. Corequisite: TPP 3250.

MUO 3603 Elements of Stage Production (2). Aspects of technical theatre will be examined such as stage design and lighting, costumes and make-up, stage direction, prop construction, prompting, and Opera Theatre administration.

MUO 4503 Opera Theatre I (3). Culmination of opera courses with emphasis on accumulation of repertoire, systematic development of a role, and rehearsal procedures and discipline. Student may perform self-directed scenes. Permission of the instructor.

MUO 4504 Opera Theatre II (3). Continuation of Opera Theatre I. Student may participate in staged operatic production as performer or technical personnel. Prerequisites: MVV 4561, MVV 4451, and MVV 3931 or permission of the instructor.

MUR 3941, 5946 Organ Practicum (2). Study of practical aspects of organ performance as it pertains to employment within a sacred chamber music setting.

MUS 1010, 3040 Recital Attendance (0). Students attend concerts and recitals as a corequisite to applied music. Required of music majors each semester.

MUS 2201 Diction I (2). To develop skills in the proper enunciation of Italian, French and Latin diction as applied to singing in opera, oratorio, and art song.

MUS 2202 Diction II (2). Develop skills in the proper enunciation of English, German and Spanish language in the performance of art song, oratorio, and opera literature.

MUS 2211 English Diction (1). Develop the skills in the proper enunciation of the English language as used in opera, oratorio, and art song literature. Corequisites: All applied MVV.

MUS 2221 French Diction (1). Develop the skills in the proper enunciation of the French language as used by singers in opera, oratorio, and art song literature. Corequisites: All applied MVV.

MUS 2231 German Diction (1). Develop the skills in the proper enunciation of the German language as used by singers in opera, oratorio, and art song literature. Corequisites: All applied MVV.

MUS 2241 Italian Diction (1). Develop the skills in the proper enunciation of the Italian language as used by singers in opera, oratorio, and art song literature. Corequisites: All applied MVV.

MUS 2501 Introduction to Digital Audio Production (3). A project-oriented class with assignments in basic audio editing, plug-ins, and sound effects.

MUS 3331 Recording and Production in Pro Tools (3). A project-oriented class in audio recording and editing using the Pro Tools application. Prerequisite: MUS 2501.

MUS 3905, 5905 Directed Study (VAR). Designed to provide areas of exploration and specialization beyond the basic selected study programs, such as electronic music, religious music literature, sound techniques, etc. Prerequisite: Permission of the instructor.

MUS 3910, 4910, 5910 Research (VAR). Research composition or performance projects, under the guidance and direction of the music faculty. (May be repeated). Prerequisite: Permission of the instructor.

MUS 4650 Experimental Music and Arts (3). The history of interdisciplinary art created in the 20th century is covered, giving students from different areas the opportunity to create interdisciplinary works.

MUS 4949 Cooperative Education in Performing Arts (VAR). A student majoring in Performing Arts may spend several semesters fully employed in industry or government in a capacity relating to the major.

MUS 5205 Graduate Review Diction I (2). To review the rules and methods of correct pronunciation of Italian, French, and Latin lyric diction as applied to singing opera, oratorio, and art song.

MUS 5206 Graduate Review Diction II (2). A review of the rules and skills for proper enunciation of English, German, and Spanish language in the performance of classical vocal music.

MUS 5345 MIDI Technology (2). Introduction to MIDI technology including sequencing, notation, patch editing and a variety of other applications. Prerequisite: Graduate standing.

MUS 5512 Sound Reinforcement (2). Exploration of live music on location, dealing with commonly encountered acoustical problems and how to overcome them. Prerequisite: Permission of the graduate advisor.

MUS 5655 Expanding Artistic Expression (2). Focuses on expanding the horizons of the artistic vision of the student. Accomplished through a series of projects. Prerequisite: Permission of the graduate advisor.

MUS 5711 Music Bibliography (2). Library research methods and materials; documentation of research results in bibliographic style. Develops critical thinking and evaluative skills regarding sources of information, print and online. Prerequisite: Graduate standing.

MUS 5906 Thesis/Recital (1-6). For students working on a thesis or recital for MM in Music. To be completed under the supervision of a faculty member. Prerequisite: Graduate standing.

MUS 5971 Thesis (1-6). Research and/or performances towards completion of master's thesis work. Prerequisite: Permission of graduate area advisor.

MUT 1001 Fundamentals of Music (3). A beginning music theory course in the basic elements of music rhythms, meter notation, key signatures, scales, intervals, and triads.

MUT 1111 Music Theory I (3). This course is designed to promote and develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. Corequisite: MUT 1221.

MUT 1112 Music Theory II (3). This course is designed to promote and develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. The second semester is a

continuation of Theory I. Prerequisite: MUT 1111. Corequisite: MUT 1222.

MUT 1221 Sightsinging I (1). Development of Basic Musicianship through aural perception, sightsinging, and ear training exercises. Corequisite: MUT 1111.

MUT 1222 Sightsinging II (1). Development of Basic Musicianship through aural perception, sightsinging and ear training exercises. The second semester is a continuation of Sightsinging I. Prerequisites: MUT 1111 MUT 1221. Corequisite: MUT 1112.

MUT 2116 Music Theory III (3). Continuation of Music Theory II. It seeks to promote and further develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. Prerequisite: MUT 1112. Corequisite: MUT 2226.

MUT 2117 Music Theory IV (3). This course further develops those skills acquired in Music Theory III. Prerequisite: MUT 2116. Corequisite: MUT 2227.

MUT 2226 Sightsinging III (1). Continuation of Sightsinging II through aural perception, sightsinging, and ear training exercises. Prerequisites: MUT 1112, MUT 1222. Corequisite: MUT 2116.

MUT 2227 Sightsinging IV (1). Continuation of Sightsinging III through aural perception, sightsinging, and ear training exercises. Prerequisites: MUT 2226, MUT 2116. Corequisite: MUT 2117.

MUT 2641 Jazz Improvisation I (2). A beginning course in Jazz improvisation that teaches fundamental aspects, chord structures and extensions, chord scales, melodic patterns, and tunes. Course will involve both theory and practical application. A concert will be held at conclusion of the term. Prerequisite: Permission of the instructor.

MUT 2642 Jazz Improvisation II (2). A follow-up course that both reinforces and extends all materials learned in Jazz Improvisation I. Course stresses more complex chord structures, scales, and tunes. A concert will be held at conclusion of the term. Prerequisite: MUT 2641.

MUT 3401 Counterpoint (3). A study of linear writing through species counterpoint. Two and three-part instrumental and vocal counterpoint of the 18th century: Canon, inventions, fugues. Emphasis will be placed on formal analysis. Prerequisites: MUT 2117, 2227.

MUT 3611 Form and Analysis (3). Study and analysis from the smaller forms of musical composition to multimovement forms. Prerequisites: MUT 2117, MUT 2227.

MUT 4141 Comprehensive Music Systems (3). An introduction to the applied techniques of recent comprehensive theoretical approaches to musical analysis. Prerequisites: MUT 3611 or permission of the instructor.

MUT 4311 Orchestration (3). With a background of basic theory, the student will explore the techniques of writing and arranging for instruments in performing organizations. Prerequisites: MUT 2117 and MUT 2227.

MUT 4312 Advanced Orchestration (3). A follow-up course to Orchestration that teaches students advanced techniques in scoring for orchestral instruments as utilized by composers of western art music from classical to present times. Prerequisites: MUT 4311 or permission of the instructor.

MUT 4353 Jazz Arranging (2). This course teaches the fundamental aspects of jazz arranging: instrumentation, transposition, section and ensemble writing, chord voicing, counterpoint, and form and analysis. The performance of an original arrangement is required as a final project. Prerequisite: MUT 2641.

MUT 4628 Atonal Analysis (3). A continuation of Music Theory IV, this course introduces students to the basic concepts and procedures for set-theoretic analysis of atonal and serial techniques used in 20th-century music. Prerequisites: MUT 2117, MUT 2227, or permission of the instructor.

MUT 4643 Jazz Improvisation III (2). A continuation of Jazz Improvisation II, this course teaches chromatic chords, advanced scales and progressions, patterns, repertoire. Individual and ensemble performance is required as a final project. Prerequisite: MUT 2642.

MUT 4644 Jazz Improvisation IV (2). A continuation of the Jazz Improv I, II, and III track. Further study and analysis of contemporary jazz compositions and their harmonic implications as applied to the craft improvisation. Prerequisites: MUT 2641, MUT 2642, MUT 4643.

MUT 4663 Jazz Styles and Analysis I (2). An extensive study of the significant styles and performers in jazz history from its origins to the present. Includes instruction in layered listening, various analyses, and transcribing. Prerequisites: Jazz theory or permission of the instructor.

MUT 4664 Jazz Styles and Analysis II (2). An extensive study of the significant styles and performers in jazz history from its origins to the present. Includes instruction in layered listening, various analyses, and transcribing. Continuation of Jazz Styles and Analysis I. Prerequisites: MUT 4663 or permission of the instructor.

MUT 5051 Graduate Theory Survey (1-3). Analytical, theoretical and aural skills required for successful graduate studies in music. Prerequisites: Placement exam or permission of the instructor.

MUT 5152 Comprehensive Musical Systems (3). Examination of various comprehensive theoretical systems utilized in the analysis of music. Prerequisites: Graduate standing or permission of the instructor.

MUT 5316 Advanced Orchestration (3). Examination of orchestrational techniques utilized by composers from the Baroque era through current times. Prerequisites: Graduate standing or permission of the instructor.

MUT 5355 Advanced Jazz Arranging and Composition (3). Scores and recordings of various sized jazz ensembles are studied for technique and style. Students' compositions and arrangements are performed. Topics include: forms, voicing techniques, instrumentation-live performance vs. recording session. Prerequisites: MUT 4353; MUT 4663; MUT 4664.

MUT 5381 Arranging (3). A course in practical arranging for the public school teacher, including choral, band, and popular arranging. Prerequisites: MUT 2117 and MUT 2227.

MUT 5411 Modal Counterpoint (3). Develop skills necessary to write in the Renaissance style and to analyze

the masterworks of Palestrina, Lassus, Victoria, and others. Prerequisites: Graduate standing in the School of Music or permission of the instructor.

MUT 5486 Advanced Jazz Rehearsal Techniques (2). Study and practical application of complete preparation, programming, and rehearsing of small and large jazz ensembles. Students study scores and recordings of various jazz styles and rehearse school's ensembles. Prerequisites: MUN 4784; MUT 4643; MUT 4663; MUT 4664.

MUT 5585 Musical Styles Through Strict Composition (3). This course is designed to develop basic compositional skills for writing works in all forms. Prerequisites: Graduate standing in the School of Music or permission of the instructor.

MUT 5627 Schenkerian Analysis (3). Advanced studies in Schenkerian analysis of tonal music. Prerequisites: Graduate standing in the School of Music or permission of the instructor.

MUT 5628 Atonal Analysis (3). Advanced studies in set theory and serial techniques of twentieth-century music. Prerequisites: Graduate standing in the School of Music or permission of the instructor.

MUT 5629 Analytical Techniques (3). Examination and practice of various techniques utilized in the analysis of art music from the common practice period through the 20th century. Prerequisites: Placement exam or permission of the instructor.

MUT 5930 Special Topics (3). Examination of composers, compositional schools, or other areas of specialization and/or interest to the theory/composition faculty. Prerequisites: Graduate standing in the School of Music or permission of the instructor.

MUT 5646 Advanced Jazz Techniques I (2). A comprehensive, theoretical study of topics related to jazz performance. Includes the nature of improvisation, advanced jazz harmony, theory of jazz improvisation, transcribing and analyzing solos of jazz masters. Prerequisite: MUT 4643.

MUT 5647 Advanced Jazz Techniques II (2). A continuing study of topics related to jazz performance. Includes analyzing solos of jazz masters, development of repertoire, style, and aesthetic concepts. Prerequisite: MUT 5646.

MUT 5746 Jazz Pedagogy (2). Materials, techniques, and philosophies related to teaching jazz. Includes preparation of courses, course outline and syllabi, lesson plans, lectures. Texts and other resources such as videos, recordings, periodicals, are examined. Prerequisites: MUT 4663 and MUT 5355.

MVB 1211, 2221, 3231, 4241, 5251 Secondary Applied Trumpet (1). Individual instruction in applied music on trumpet as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1212, 2222, 3232, 4242, 5252 Secondary Applied French Horn (1). Individual instruction in applied music on French horn as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1213, 2223, 3233, 4243, 5253 Secondary Applied Trombone (1). Individual instruction in applied music on trombone as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1214, 2224, 3234, 4244, 5254 Secondary Applied Baritone Horn (1). Individual instruction in applied music on baritone horn as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1215, 2225, 3235, 4245, 5255 Secondary Applied Tuba (1). Individual instruction in applied music on tuba as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1311, 2321, 3331, 4341, 5351 Principal Applied Trumpet (1-2). Individual instruction in applied music on trumpet as a principal instrument. Music majors only.

MVB 1312, 2322, 3332, 4342, 5352 Principal Applied French Horn (1-2). Individual instruction in applied music on French horn as a principal instrument. Music majors only.

MVB 1313, 2323, 3333, 4343, 5353 Principal Applied Trombone (1-2). Individual instruction in applied music on applied trombone as a principal instrument. Music majors only.

MVB 1314, 2324, 3334, 4344, 5354 Principal Applied Baritone Horn (1-2). Individual instruction in applied music on baritone horn as a principal instrument. Music majors only.

MVB 1315, 2325, 3335, 4345, 5355 Applied Tuba (1-2). Individual instruction in applied music on tuba as a principal instrument. Music majors only.

MVB 1411, 2421 Major Applied Trumpet (1-2). Individual instruction in applied music on trumpet as a major instrument. Music majors only.

MVB 1412, 2422, 3432 Major Applied French Horn (1-2). Individual instruction in applied music on French horn as a major instrument. Music majors only.

MVB 1413, 2423 Major Applied Trombone (1-2). Individual instruction in applied music on trombone as a major instrument. Music majors only.

MVB 1414, 2424 Major Applied Baritone Horn (1-2). Individual instruction in applied music on baritone horn as a major instrument. Music majors only.

MVB 1415, 2425 Major Applied Tuba (1-2). Individual instruction in applied music on tuba as a major instrument. Music majors only.

MVB 3431, 4441, 5451 Major Applied Trumpet (3). Individual instruction in applied music on trumpet as a major instrument. Music majors only.

MVB 4442, 5452 Major Applied French Horn (3). Individual instruction in applied music on French horn as a major instrument. Music majors only.

MVB 3433, 4443, 5453 Major Applied Trombone (3). Individual instruction in applied music on trombone as a major instrument. Music majors only.

MVB 3434, 4444, 5454 Major Applied Baritone Horn (3). Individual instruction in applied music on baritone horn as a major instrument. Music majors only.

MVB 3435, 4445, 5455 Major Applied Tuba (3). Individual instruction in applied music on tuba as a major

instrument. Music majors only.

MVB 3970 Junior Recital - Brass (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVB 4971 Senior Recital - Brass (1). All music majors must present, before graduation, at least one half (full recital performance for majors) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVJ 1210, 2220, 3230, 4240, 5250 Secondary Jazz Piano (1). Individual instruction in applied jazz music on piano. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1211 Principal Applied Jazz Drums (1-2). Individual instruction in applied music on jazz drums as a principal instrument. Prerequisite: Music majors only.

MVJ 1213, 2223, 3233, 4243, 5253 Secondary Jazz Guitar (1). Individual instruction in applied jazz music on guitar. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1214, 2224, 3234, 4244, 5254 Secondary Jazz Bass (1). Individual instruction in applied jazz music on bass. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1215, 2225, 3235, 4245, 5255 Secondary Jazz Flute (1). Individual instruction in applied jazz music on flute. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1216, 2226, 3236, 4246, 5256 Secondary Jazz Saxophone (1). Individual instruction in applied jazz music on saxophone. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1217, 2227, 3237, 4247, 5257 Secondary Jazz Trumpet (1). Individual instruction in applied jazz music on trumpet. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1218, 2228, 3238, 4248, 5258 Secondary Jazz Trombone (1). Individual instruction in applied jazz music on trombone. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1219, 2229, 3239, 4249, 5259 Secondary Latin Jazz Percussion (1). Individual instruction in applied jazz music on percussion. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1310 Principal Applied Jazz Piano (1-2). Individual instruction in applied music on jazz piano as a principal level. Prerequisite: Music majors only.

MVJ 1312 Principal Applied Latin Jazz Percussion (1-2). Individual instruction in applied music on Latin jazz percussion as a principal instrument. Prerequisite: Music majors only.

MVJ 1313, 2323, 3333, 4343, 5353 Principal Applied Jazz Guitar (2). Individual instruction in applied jazz music on guitar. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1314, 2324, 3334, 4344, 5354 Principal Applied Jazz Bass (2). Individual instruction in applied jazz music on bass. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1316, 2326, 3336, 4346 Principal Applied Jazz Saxophone (1-2). Individual instruction on major instrument. An in-depth study of overall instrumental technique, styles, and other performance practices particularly relevant to jazz. Prerequisite: Audition.

MVJ 1317, 2327, 3337, 4347 Principal Applied Jazz Trumpet (2). Individual instruction in applied music on jazz trumpet at a principal level. Prerequisite: Music majors only.

MVJ 1318, 2328, 3338, 4348 Principal Applied Jazz Trombone (2). Individual instruction in applied music on jazz trombone at a principal level. Prerequisite: Music majors only.

MVJ 1410, 2420, 3430, 4440 Major Applied Jazz Piano (2). Individual instruction in applied music on jazz piano as a major level. Prerequisite: Music majors only.

MVJ 1411 Major Applied Jazz Drums (1-2). Individual instruction in applied music on jazz drums as a major instrument. Prerequisite: Music majors only.

MVJ 1413 Major Applied Jazz Guitar (1-2). Individual instruction in applied music on jazz guitar at a major level. Prerequisite: Music majors only.

MVJ 1414, 2424, 3434, 4444 Major Applied Jazz Bass (1-2). Individual instruction in applied music on jazz bass at a major level. Prerequisite: Music majors only.

MVJ 1416, 2426, 3436, 4446, 5456 Major Applied Jazz Saxophone (1-2). Individual instruction on major instrument. An in-depth study of overall instrumental technique, styles, and other performance practices particularly relevant to jazz. Prerequisite: Audition.

MVJ 1417, 2427, 3437, 4447, 5457 Major Applied Jazz Trumpet (2). Individual instruction in applied music on jazz trumpet at a major level. Prerequisite: Music majors only.

MVJ 1418, 2428, 3438, 4448, 5458 Major Applied Jazz Trombone (2). Individual instruction in applied music on jazz trombone at a major level. Prerequisite: Music majors only.

MVJ 2310, 3330, 4340 Principal Applied Jazz Piano (2). Individual instruction in applied music on jazz piano at a principal level. Prerequisite: Music majors only.

MVJ 2329, 3339, 4349, 5359 Principal Applied Jazz Drums (2). Individual instruction in applied music on jazz drums at a principal level. Prerequisite: Music majors only.

MVJ 2423, 3433, 4443 Major Applied Jazz Guitar (2). Individual instruction in applied music on jazz guitar at a major level. Prerequisite: Music majors only.

MVJ 2429, 3439, 4449, 5459 Major Applied Jazz Latin Percussion (2) Individual instruction in applied music on jazz percussion as a major instrument. Prerequisite: Music majors only.

MVJ 3970 Junior Recital – Jazz (1). All music performance majors must present, during their junior year, at least one-half of a public recital, and pass an oral

examination. See areas of emphasis for specific requirements. Prerequisite: Approval of director of Jazz Studies.

MVJ 4971 Senior Recital - Jazz (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVJ 5150 Jazz Piano Techniques (1). Performance of basic jazz standards. Includes basic techniques of the instrument, chord voicing, comping, lead sheet realization for non-pianists. Prerequisites: Graduate standing or permission of the instructor.

MVJ 5350 Principal Applied Jazz: Keyboard (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5355 Principal Applied Jazz: Flute (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5356 Principal Applied Jazz: Saxophone (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5357 Principal Applied Jazz: Trumpet (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5358 Principal Applied Jazz: Trombone (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5453 Major Applied Jazz Guitar (2) Individual instruction on major instrument, focusing on the jazz idiom. An in-depth study of overall instrumental technique, eminent styles, and other performance practices that are particularly relevant to jazz and commercial performance. Prerequisite: Music Majors Only

MVJ 5454 Major Applied Jazz Bass (2). Individual instruction on major instrument, focusing on the jazz idiom. An in-depth study of overall instrumental technique, eminent styles, and other performance practices that are particularly relevant to jazz and commercial performance. Prerequisite: Music Majors Only

MVK 1111 Class Piano I (1). A course designed to teach piano skills and competencies to non-piano majors. This is a four-semester sequence for music majors. This course includes: keyboard familiarization, finger exercises and techniques, transposing, and easy literature. Prerequisite: None. Music majors only.

MVK 1112 Class Piano II (1). A continuation of Class Piano I, MVK 1111. Prerequisite: MVK 1111. Music majors only.

MVK 1115 Keyboard Studies (1). Course designed to develop the composite keyboard skills and practical training for the piano major/principal to become a proficient sight-reader.

MVK 1211, 2221, 3231, 4241, 5251 Secondary Applied Piano (1). Individual instruction in applied music on piano as a secondary instrument. Prerequisite: Permission of the instructor.

MVK 1213, 2223, 3233, 4243, 5253 Secondary Applied Organ (1). Individual instruction in applied music on organ as a secondary instrument. Prerequisite: Permission of the instructor.

MVK 1311, 2321, 3331, 4341, 5351 Principal Applied Piano (1-2). Individual instruction in applied music on piano as a principal instrument. Music majors only.

MVK 1313, 2323, 3333, 4343, 5353 Principal Applied Organ (1-2). Individual instruction in applied music on organ as a principal instrument. Music majors only.

MVK 1411, 2421 Major Applied Piano (1-2). Individual instruction in applied music on piano as a major instrument. Music majors only.

MVK 1413, 2423 Major Applied Organ (1-2). Individual instruction in applied music on organ as a major instrument. Music majors only.

MVK 2121 Class Piano III (1). A continuation of Class Piano II. The course includes continued work in finger technique, scales and fingering, transposing, simple accompaniments to folk songs, sight reading cadences, and simple literature. Prerequisite: MVK 1112. Music majors only.

MVK 2122 Class Piano IV (1). A continuation of Class Piano III. Prerequisite: MVK 2121. Music majors only.

MVK 3130 Class Piano V (1). Further development of elementary keyboard techniques and musicianship: scales, harmonization, arpeggios, transposition, improvisation, sightreading, and simple literature. Prerequisites: MVK 2122 or by placement exam.

MVK 3131 Class Piano VI (1). A continuation of MVK 3130. Prerequisites: MVK 3130 or by placement exam.

MVK 3431, 4441, 5451 Major Applied Piano (3). Individual instruction in applied music on piano as a major instrument. Music majors only.

MVK 3433, 4443, 5453 Major Applied Organ (3). Individual instruction in applied music on organ as a major instrument. Music majors only.

MVK 3970 Junior Recital - Keyboard (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVK 4141 Class Piano VII (1). Further development of elementary keyboard techniques and musicianship: scales, harmonization, arpeggios, transposition, improvisation, sightreading, and simple literature. Prerequisites: MVK 3131 or by placement exam.

MVK 4142 Class Piano VIII (1). A continuation of MVK 4141. Prerequisites: MVK 4141 or by placement exam.

MVK 4640 Piano Pedagogy (2). A survey of current teaching methods and techniques in piano pedagogy.

Supervised teaching provides hands-on experience.

MVK 4971 Senior Recital - Keyboard (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVK 5651 Piano Pedagogy (2). Survey of current piano teaching methods.

MVK 5605 Organ Pedagogy (2). An overview of historical and modern organ methods, pedagogies and supporting material.

MVO 5651 Graduate Pedagogy (1). The development of teaching skills required by graduate assistants, including classroom skills, designing examinations, etc. Prerequisite: Graduate Assistants.

MVP 1211, 2221, 3231, 4241, 5251 Secondary Applied Percussion (1). Individual instruction in applied music on percussion as a secondary instrument. Prerequisite: Permission of the instructor.

MVP 1311, 2321, 3331, 4341, 5351 Principal Applied Percussion (1-2). Individual instruction in applied music on percussion as a principal instrument. Music majors only.

MVP 1411, 2421 Major Applied Percussion (1-2). Individual instruction in applied music on percussion as a major instrument. Music majors only.

MVP 3431, 4441, 5451 Major Applied Percussion (3). Individual instruction in applied music on percussion as a major instrument. Music majors only.

MVP 3970 Junior Recital - Percussion (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVP 4971 Senior Recital - Percussion (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVS 1116 Guitar Skills (1). Emphasis on music reading and elementary techniques. Prerequisite: Permission of the instructor.

MVS 1211, 2221, 3231, 4241, 5251 Secondary Applied Violin (1). Individual instruction in applied music on violin as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1212, 2222, 3232, 4242, 5252 Secondary Applied Viola (1). Individual instruction in applied music on viola as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1213, 2223, 3233, 4243, 5253 Secondary Applied Cello (1). Individual instruction in applied music on cello as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1214, 2224, 3234, 4244, 5254 Secondary Applied Double Bass (1). Individual instruction in applied music on double bass as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1215, 2225, 3235, 4245, 5255 Secondary Applied Harp (1). Individual instruction in applied music on harp as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1216, 2226, 3236, 4246, 5256 Secondary Applied Guitar (1). Individual instruction in applied music on guitar as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1311, 2321, 3331, 4341, 5351 Principal Applied Violin (1-2). Individual instruction in applied music on violin as a principal instrument. Music majors only.

MVS 1312, 2322, 3332, 4342, 5352 Principal Applied Viola (1-2). Individual instruction in applied music on viola as a principal instrument. Music majors only.

MVS 1313, 2323, 3333, 4343, 5353 Principal Applied Cello (1-2). Individual instruction in applied music on cello as a principal instrument. Music majors only.

MVS 1314, 2324, 3334, 4344, 5354 Principal Applied Double Bass (1-2). Individual instruction in applied music on double brass as a principal instrument. Music majors only.

MVS 1315, 2325, 3335, 4345, 5355 Principal Applied Harp (1-2). Individual instruction in applied music on harp as a principal instrument. Music majors only.

MVS 1316, 2326, 3336, 4346, 5356 Principal Applied Guitar (1-2). Individual instruction in applied music on guitar as a principal instrument. Music majors only.

MVS 1411, 2421 Major Applied Violin (1-2). Individual instruction in applied music on violin as a major instrument. Music majors only.

MVS 1412, 2422 Major Applied Viola (1-2). Individual instruction in applied music on viola as a major instrument. Music majors only.

MVS 1413, 2423, 4443, Major Applied Cello (1-2). Individual instruction in applied music on cello as a major instrument. Music majors only.

MVS 1414, 2424 Major Applied Double Bass (1-2). Individual instruction in applied music on double brass as a major instrument. Music majors only.

MVS 1415, 2425 Major Applied Harp (1-2). Individual instruction in applied music on harp as a major instrument. Music majors only.

MVS 1416, 2426 Major Applied Guitar (1-2). Individual instruction in applied music on guitar as a major instrument. Music majors only.

MVS 2226 Intermediate Guitar Skills (1). Emphasis on techniques and styles such as calypso, folk, blues, classical, and jazz. Open to all FIU students. Prerequisite: MVS 1116.

MVS 3431, 4441, 5451 Major Applied Violin (3). Individual instruction in applied music on violin as a major instrument. Music majors only.

MVS 3432, 4442, 5452 Major Applied Viola (3). Individual instruction in applied music on viola as a major instrument. Music majors only.

MVS 3433, 5453 Major Applied Cello (3). Individual instruction in applied music on cello as a major instrument.

Music majors only.

MVS 3434, 4444, 5454 Major Applied Double Bass (3). Individual instruction in applied music on double brass as a major instrument. Music majors only.

MVS 3435, 4445, 5455 Major Applied Harp (3). Individual instruction in applied music on harp as a major instrument. Music majors only.

MVS 3436, 4446, 5456 Major Applied Guitar (3). Individual instruction in applied music on guitar as a major instrument. Music majors only.

MVS 3970 Junior Recital - String (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVS 4971 Senior Recital - String (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVV 1111 Voice Class (1). Class instruction on voice designed to help the student in developing performance skills and increased musical knowledge. Prerequisite: Permission of the instructor.

MVV 1211, 2221, 3231, 4241, 5251 Secondary Voice (1). Individual instruction in applied music on voice as a secondary instrument. Prerequisite: Permission of the instructor.

MVV 1311, 2321, 3331, 4341, 5351 Principal Applied Voice (1-2). Individual instruction in applied music on trumpet as a principal instrument. Music majors only.

MVV 1411, 2421 Major Applied Voice (1-2). Individual instruction in applied music on voice as a major instrument. Music majors only.

MVV 2121 Intermediate Voice Class (1). Emphasis on sightsinging, tonal production, interpretation, and other vocal exercises. Particular attention is paid to vocal and acting improvisation. Prerequisite: MVV 1111.

MVV 3431, 4441, 5451 Major Applied Voice (3). Individual instruction in applied music on voice as a major instrument. Music majors only.

MVV 3630 Vocal Pedagogy (2). Research into various philosophies of vocal pedagogy with emphasis on the science of acoustics, anatomy, terminology, psychological factors which apply to the art of singing.

MVV 3970 Junior Recital - Voice (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVV 4551 Opera History Practicum (2). A performance course corequisite with History of Opera: MUL 4662 with emphasis on historical development and differentiation of operatic styles through characterization and musical interpretation. Includes ensemble experience.

MVV 4971 Senior Recital - Voice (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVV 5651 Graduate Vocal Pedagogy I (2). An introduction to the history and development of vocal pedagogy for the graduate voice major. Emphasis will be placed on a study of the anatomy and acoustics of the human voice.

MVV 5652 Graduate Vocal Pedagogy II (2). Practical application of the principles of vocal technique in the studio. Emphasis will be placed on the psychological factors which apply to singing and the teaching of singing. Prerequisite: Graduate Vocal Pedagogy I.

MVW 1211, 2221, 3231, 4241, 5251 Secondary Applied Flute (1). Individual instruction in applied music on flute as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1212, 2222, 3232, 4242, 5252 Secondary Applied Oboe (1). Individual instruction in applied music on oboe as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1213, 2223, 3233, 4243, 5253 Secondary Applied Clarinet (1). Individual instruction in applied music on clarinet as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1214, 2224, 3234, 4244, 5254 Secondary Applied Bassoon (1). Individual instruction in applied music on bassoon as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1215, 2225, 3235, 4245, 5255 Secondary Applied Saxophone (1). Individual instruction in applied music on saxophone as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1311, 2321, 3331, 4341, 5351 Principal Applied Flute (1-2). Individual instruction in applied music on flute as a principal instrument. Music majors only.

MVW 1312, 2322, 3332, 4342, 5352 Principal Applied Oboe (1-2). Individual instruction in applied music on oboe as a principal instrument. Music majors only.

MVW 1313, 2323, 3333, 4343, 5353 Principal Applied Clarinet (1-2). Individual instruction in applied music on clarinet as a principal instrument. Music majors only.

MVW 1314, 2324, 3334, 4344, 5354 Principal Applied Bassoon (1-2). Individual instruction in applied music on bassoon as a principal instrument. Music majors only.

MVW 1315, 2325, 3335, 4345, 5355 Principal Applied Saxophone (1-2). Individual instruction in applied music on saxophone as a principal instrument. Music majors only.

MVW 1411, 2421 Major Applied Flute (1-2). Individual instruction in applied music on flute as a major instrument. Music majors only.

MVW 1412, 2422 Major Applied Oboe (1-2). Individual instruction in applied music on oboe as a major instrument. Music majors only.

MVW 1413, 2423 Major Applied Clarinet (1-2). Individual instruction in applied music on clarinet as a major instrument. Music majors only.

MVW 1414, 2424 Major Applied Bassoon (1-2). Individual instruction in applied music on bassoon as a major instrument. Music majors only.

MVW 1415, 2425 Major Applied Saxophone (1-2). Individual instruction in applied music on saxophone as a major instrument. Music majors only.

MVW 3431, 4441, 5451 Major Applied Flute (3). Individual instruction in applied music on flute as a major instrument. Music majors only.

MVW 3432, 4442, 5452 Major Applied Oboe (3). Individual instruction in applied music on oboe as a major instrument. Music majors only.

MVW 3433, 4443, 5453 Major Applied Clarinet (3). Individual instruction in applied music on clarinet as a major instrument. Music majors only.

MVW 3434, 4444, 5454 Major Applied Bassoon (3). Individual instruction in applied music on bassoon as a major instrument. Music majors only.

MVW 3435, 4445, 5455 Major Applied Saxophone (3). Individual instruction in applied music on saxophone as a major instrument. Music majors only.

MVW 3970 Junior Recital - Woodwind (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVW 4971 Senior Recital - Woodwind (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

School of Theatre, Dance and Speech Communication

Lesley-Ann Timlick, *Associate Professor and Director*
Joanne Brown, *Instructor*
Phillip Church, *Associate Professor*
Geordan Gottlieb, *Assistant Technical Director*
Thomas Hagood, *Associate Professor and Chair, Dance Department*
Ellen Karsh, *Instructor*
Gary Lund, *Instructor*
Stephen Luscher, *Visiting Instructor*
Tracey Moore, *Assistant Professor*
Leslie Neal, *Associate Professor*
Stephen Neal, *Visiting Instructor*
Marina Pareja, *Costumer*
Celso Peruyera, *Technical Director*
Wayne Robinson, *Associate Professor*
Brian Schriner, *Instructor and Chair, Speech Communication Department*
Andrea Seidel, *Associate Professor*
Marilyn Skow, *Associate Professor*
Augusto Soledade, *Assistant Professor*
Kathleen Watson, *Instructor*

Theatre Department

The goal of the theatre department is to transform students into passionate, disciplined theatre professionals and creatively aware individuals by offering an accessible, high quality, comprehensive theatre education. Students develop their abilities by combining theory and the practice of theatre. We strive to create a new generation of theatre artists who are dedicated to using their education and creative abilities to communicate the human condition. In addition to completion of course work, theatre majors are required to participate in all of the major productions presented while the student is enrolled in the theatre department.

B.A. Candidates will complete the core courses and select an additional 18 elective theatre credits from the approved list of theatre courses. BFA candidates will complete their core courses plus specialization in performance or design. In conjunction with specified courses in the College of Education the department offers all of the courses required for the student to be eligible for teacher certification in theatre education.

The degree requirements represent a four year program. Upper division transfers must have their lower division preparation evaluated by the department and will be advised accordingly.

An audition and/or interview is required of all students entering the theatre department. To qualify for full admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Students for whom English is a second language must have a minimum TOEFL score of at least 550 plus an interview with department personnel to determine adequacy of English writing and speaking skills for the major.

Bachelor of Arts in Theatre

Degree Program Hours (120)

THE 1020	Introduction to Theatre For Majors	1
THE 4110	Theatre History I	3
THE 4111	Theatre History II	3
THE 4370	Modern Dramatic Literature	3
THE 4972	Senior Thesis	1
THE 4314	Classical Dramatic Literature	3
TPA 2010	Introduction to Design	3
TPA 2210	Stagecraft I	3
TPA 2290L	Technical Theatre Lab I	1
TPA 2291L	Technical Theatre Lab II	1
TPA 2292L	Technical Theatre Lab III	1
TPA 3230	Stage Costuming	3
TPA 3293L	Technical Theatre Lab IV	1
TPP 1110	Acting I	2
TPP 2111	Acting II	3
TPP 3310	Directing	3
TPA 1320L	Technical Skills I	1
TPA 1321L	Technical Skills II	1
TPA 2001L	Production Participation (must be repeated for 2 credits)	2

Choose 1 course from the following – 3 credits

TPA 3040	Costume Design I	3
TPA 2220	Stage Lighting I	3
TPA 3060	Scenic Design I	3

Choose 18 credits from these electives:

TPP 2161	Theatre Voice and Movement II	3
TPP 3113	Acting IV	3
TPP 3730	Dialects	3
TPP 4311	Directing II	3
TPP 4400	Stage & Theatre Management	3
TPP 4600	Playwriting I	3
TPP 4601	Playwriting II	3
THE 4760	Methods of Teaching Theatre	3
THE 4950	Internship	1-6
TPA 3002	Period Styles in Theatre Design	3
TPA 2211	Stagecraft II	3
TPA 2220	Stage Lighting I	3
TPA 3060	Scenic Design I	3
TPA 3930	Special Topics in Theatre	1-3
THE 4916	Research	1-5
TPA 2248	Stage Makeup	3
TPP 2160	Theatre Voice and Movement I	3
TPP 2112	Acting III	3

Bachelor of Fine Arts in Theatre

Degree Program Hours: 128

Performance Specialization (81)

THE 1020	Introduction to Theatre For Majors	1
THE 4110	Theatre History I	3
THE 4111	Theatre History II	3
THE 4370	Modern Dramatic Literature	3
THE 4971	Senior Projects	1
TPA 2010	Introduction to Design	3
TPA 2210	Stagecraft I	3
TPA 2248	Stage Makeup	3
TPA 2290L	Technical Theatre Lab I	1
TPA 2291L	Technical Theatre Lab II	1
TPA 2292L	Technical Theatre Lab III	1
TPA 3230	Stage Costuming	3
TPA 3293L	Technical Theatre Lab IV	1
TPP 1110	Acting I	2

TPP 2111	Acting II	3
TPP 2112	Acting III	3
TPP 3310	Directing I	3
TPP 3650	Playscript Analysis	3
TPP 4600	Playwriting I	3
TPA 2001L	Production Participation (must be repeated for 2 credits)	2
TPA 1320L	Technical Skills I	1
TPA 1321L	Technical Skills II	1

Advanced Courses in Performance Specialization

TPP 3113	Acting IV	3
TPP 3164	Theatre Voice and Movement III	3
TPP 3165	Theatre Voice and Movement IV	3
TPP 4114	Acting V	3
TPP 4195L	Upper Division Production and Performance (May be repeated a maximum of 3 times)	1
TPP 4117	Acting VI	3
TPP 4224	Acting VII	3
TPP 4265	Acting VIII	3
1 Dance technique class as approved by an advisor		2

And

Choose another 3 credits from these electives:

Dance technique class as approved by an advisor		2
MUN 2320	Women's Chorus	1
MUN 2330	Men's Chorus	1
TPP 3730	Dialects	3
TPP 3923	Musical Theatre Workshop	3
TPP 4531	Stage Combat	3
TPP 4564	Mime	3

Design Specialization (60)

THE 1020	Introduction to Theatre For Majors	1
THE 4110	Theatre History I	3
THE 4111	Theatre History II	3
THE 4370	Modern Dramatic Literature	3
THE 4971	Senior Projects	1
THE 4916	Research : Portfolio	2
THE 4950	Internship	1-6
TPA 2001L	Production Participation	2
TPA 2010	Introduction to Design	3
TPA 2210	Stagecraft I	3
TPP 2220	Stage Lighting I	3
TPA 2248	Stage Makeup	3
TPA 2290L	Technical Theatre Lab I	1
TPA 2291L	Technical Theatre Lab II	1
TPA 2292L	Technical Theatre Lab III	1
TPA 3002	Period Styles in Theatre Design	3
TPA 3230	Stage Costuming	3
TPA 3293L	Technical Theatre Lab IV	1
TPP 3296	Advanced Technical Project I	2
TPP 4297	Advanced Technical Project II	2
TPP 4298	Advanced Technical Project III	2
TPP 1110	Acting I	2
TPP 2111	Acting II	3
TPP 3310	Directing I	3

Plus one of the two following courses:

ART 3330C	Figure Drawing I	3
	or	
ART 3310C	Drawing I	3

Plus one of the following 3 specializations:

Costume Specialization (21)

ART 2251	Art History Survey II	3
ART 3331C	Figure Drawing II	3
TPA 3040	Costume Design I	3
TPA 3930	Special Topics in Theatre: Costume Patterning	3
TPA 4041	Costume Design II	3
TPA 3930	Special Topics in Theatre (Costume Crafts)	3

One elective course from the following, as approved by advisor:

ARH 3350	Baroque Art	3
ARH 4310	Early Italian Rennaissance	3
ARH 4312	Later Italian Rennaissance	3

Lighting Specialization (21)

TPA 3071	Stage Rendering	3
TPA 3060	Scenic Design I	3
TPA 3040	Costume Design I	3
TPA 3930	Special Topics in Theatre: Drafting	3
TPA 4221	Stage Lighting II	3

Two elective courses from the following, as approved by an advisor:

ART 1202	2D Design	3
ART 1203	3D Design	3
ART 2300C	Drawing I	3

Scenery Specialization (21)

ARH 2051	Art History Survey II	3
TPA 3060	Scenic Design I	3
TPA 3071	Stage Rendering	3
TPA 3930	Special Topics in Theatre: Drafting	3
TPA 4061	Scenic Design II	3

Two elective courses from the following, as approved by an advisor:

ARH 2050	Art History Survey I	3
ART 1202	2D Design	3
ART 1203	3D Design	3
ART 2300C	Drawing	3
ART 3331	Figure Drawing II	3

Minor in Theatre

Required Courses (24)

THE 2000	Theatre Appreciation	3
TPP 2100	Introduction to Acting	3
THE 4370	Modern Dramatic Literature	3
TPA 2210	Stagecraft	3
TPA 2290L	Tech Theatre Lab I	1
Theatre Electives (upper division)		11

Theatre minors will not be allowed to take TPP 2110 Acting II.

Dance Department

The mission of the dance department is to provide the highest standards of academic and artistic training in the study of expressive human movement. The dance department seeks to foster the creative and critical thinking skills necessary to prepare students for a productive life in a dynamic, and changing multicultural world. Theory, practice, and creative endeavor are linked in an innovative curriculum that focuses on the vitality of dance in artistic community and global context.

Upon completing university and program requirements, students declare dance as their major and choose an emphasis "Focus Area" in either *Liberal, Professional/Dance Studies or Education*. The *Dance Studies* focus areas are approved in consultation with the major advisor.

Students seeking to major in dance must meet the requirements for admission to the University and must successfully pass a scheduled audition class. The acceptance of transfer credits from other institutions toward FIU dance major requirements is made on a case-by-case basis. Transfer students must provide course catalogues from previous institutions they have attended to facilitate adjudication of equivalencies. Students applying for acceptance into the dance major must have completed all lower division requirements including CLAST. Students not progressing in fulfilling lower division and CLAST requirements in a timely and consistent manner, or not progressing in a satisfactory manner in the completion of work for major classes, may be put on probation or may have major status suspended or permanently revoked. Dance majors not in compliance with program regulations will not be authorized to register for dance major courses.

INDAMI – Intercultural Dance and Music Institute

CAI – The Community Arts Institute

Both Institutes work closely with the dance program and are based at the University Park campus.

Bachelor of Arts in Dance

Degree Program Hours: 120

Required Courses for Dance Degree:

Studio Technique (24 credits may apply toward the dance major)

Students are advised to register for a dance technique course each semester. The completion of technique requirements is based on competency – not the accumulation of credits. Students are expected to advance in technique and take intermediate or advanced sections during their final two semesters at FIU. To fulfill technique requirements, students must earn a grade of "B" or better in one of the following two combinations: 1) Ballet III and African Diaspora III, or 2) Modern III and African Diaspora III.

Ballet Techniques:

DAA 1200	Ballet Techniques I	3
DAA 2204	Ballet Techniques II	3
DAA 3208	Ballet Techniques III	3
DAA 4210	Ballet Techniques IV	3

Modern Dance Techniques:

DAA 1100	Modern Dance Techniques I	3
DAA 2104	Modern Dance Techniques II	3
DAA 3108	Modern Dance Techniques III	3
DAA 4110	Modern Dance Techniques IV	3

African Diaspora Techniques:

DAA 1341	African Diaspora Dance I	3
DAA 2333	African Diaspora Dance II	3
DAA 3344	African Diaspora Dance III	3

A Total of 4 credits from:

DAN 2500	Dance Production I	2
	or	
TPA 2200	Intro to Theatre Production	2
	and	
DAN 2580	Production Practicum I	1
DAN 3584	Production Practicum II	1

Additional Major Requirements:

DAN 1600	Music for Dance	3
DAA 2610	Dance Composition I	3
DAA 2611	Dance Composition II	3
DAA 3614	Dance Composition III	3
DAN 3714	Dance Kinesiology	3
DAN 3150	Performance Studies	3
DAN 4136	Global Perspectives I	3
DAN 4137	Global Perspectives II	3
DAE 3385	Building Community	3
DAA 3655	Dance Repertory III	2
Required Courses		**57 credits**

Dance Focus Areas (18 credits)

In consultation with the Dance major advisor and faculty, students select one of three Focus Areas in Dance. The Liberal Dance Studies, Professional Dance Studies, and Education focus areas allow dance students to implement a meaningful course of study. Changing the Focus Area may require additional course work or time to complete.

Professional Dance Studies Focus Area

DAA 4930	Special Topics Studio	3
DAN 4930	Special Topics Theory	3
DAN 4125	Contemp. Issues in Choreog.	3
DAN 3xxx	Methods of Teaching	3
DAN 4180	Senior Seminar	2
DAN 4970	Senior Thesis	1
Plus One Upper Division Elective Course		3
Total		**18**

Liberal Dance Studies Focus Area

12 credits in Dance Related Studies		12
[Plan of study developed by student and major advisor]		
DAN 4180	Senior Seminar	2
DAN 4970	Senior Thesis	1
Plus		
One Upper Division Elective Course		3
Total		**18**

Education: meets Certification req's in Dance

EDF 1005	Introduction to Education	3
EDP 3004	Introduction to Educational Psychology	3
EDG 3321	General Instructional Decision Making	3
EDP 3218	Classroom Management	3
Plus		
DAN 3XXX	Methods of Teaching Dance	3
DAN 4930	Contemporary Issues	3
DAN 4180	Senior Seminar	3
Total		**21**

Total credits for the major	**57**
Credit for Focus Area	**18-21**
University Core Curriculum	**36**
General Education Elective Credits	**9**
TOTAL CREDITS FOR BA IN DANCE	**120**

A grade of "C" or higher is necessary for satisfactory progress in the major. Grades lower than "C" may not be counted toward the dance major.

Dance Education Certification

Students wishing to fulfill the requirements for State Certification to teach Dance in the public schools in Florida, can qualify with a BA Degree in Dance from FIU and specified courses from the College of Education (see above). Please see advisor for details.

Minor in Dance 21 credits

The Minor in Dance is designed to meet the needs of the liberal arts student who wants to pursue dance to increase his/her creative development, artistic awareness, or intercultural understanding.

Requirements for Minor

Fifteen (15) credits in dance technique courses
Six (6) credits in dance theory courses
Ten (10) credits MUST be taken at FIU
Ten (10) credits must be upper division

Course Descriptions

Definition of Prefixes

DAA-Dance Activities; DAN-Dance Theory; ORI-Oral Interpretation; SPC-Speech Communication; THE-Theatre; TPA-Theatre Production and Administration; TPP-Theatre- Performance and Performance Training

Dance Department

DAA 1100 Modern Dance Techniques I (3). Development of techniques and understanding of the art of contemporary dance includes theoretical component of studies in dance science or history. May be repeated.

DAA 1200 Ballet Techniques I (3). Development of techniques and understanding of ballet, includes theoretical component of studies in dance science or history. May be repeated.

DAA 1341 African Diaspora Dance I (3). An introductory course in African and African diaspora dance techniques. Includes readings and discussions of historical and cultural contexts of the dance. May be repeated.

DAA 1500 Jazz Dance Technique I (2). Development of the dance techniques and understanding of jazz dance. May be repeated.

DAA 2104 Modern Dance Techniques II (3). A continuation of techniques in modern dance with emphasis on increased complexity, musicality and readings in dance history. May be repeated. Prerequisites: DAA 1100 or permission of the instructor.

DAA 2204 Ballet Techniques II (3). Continuation of Ballet Techniques I with increasing complexity in technical presentations. Emphasis on execution of movement, musicality and readings in ballet history. May be repeated. Prerequisites: DAA 1200 or permission of the instructor.

DAA 2333 African Diaspora Dance II (3). A beginning/intermediate technique class in African and African diaspora influenced dance. Emphasis on increased complexity and musicality. Readings in African Dance and Culture. May be repeated. Prerequisite: Permission of the instructor.

DAA 2350 Spanish Dance I (3). Explores the basics of theatre styles of Spanish dance. Readings and attendance at performance may be required. May be repeated.

DAA 2504 Jazz Dance Techniques II (2). A continuation of Jazz I with emphasis on quickness and musicality when executing complex combinations of movements. May be repeated.

DAA 2520 Tap (2). Designed for students interested in learning the skills and techniques of tap dancing. May be repeated.

DAA 2610 Dance Composition I (3). Introduction course in dance composition. Improvisation, movement invention and basic choreographic forms are introduced and explored. Prerequisite: Permission of the instructor.

DAA 2611 Dance Composition II (3). Choreographic devices are explored for movement invention and organized in choreographic forms. Solo and small group choreography emphasized. Prerequisites: DAA 2610 or permission of the instructor.

DAA 3094 Dance Studio (2). An in-depth studio focus on specific dance genres to vary each semester. May be repeated.

DAA 3108 Modern Dance Techniques III (3). A continuation of Modern Dance I and II with an emphasis on skills in movement style and phrasing necessary to perform modern dance repertory. Prerequisites: DAA 2104 or permission of the instructor. May be repeated.

DAA 3208 Ballet III (3). A continuation of Ballet I & II with an emphasis on developing strength & coordination in more complex movement. Additional work on phrasing, quality of movement, musicality and performance style. Prerequisites: DAA 2204 or permission of the instructor. May be repeated.

DAA 3224 Pointe Techniques (1-2). Introduction of fundamentals for development of pointe techniques. May be repeated. Prerequisite: Permission of the instructor.

DAA 3344 African Diaspora Dance III (3). An intermediate level technique class in African and African Diaspora influenced dance techniques. May be repeated. Prerequisites: DAA 2333 or permission of the instructor.

DAA 3345 Caribbean Dance (3). Studio exploration of popular and traditional dance genres and rhythms of the Caribbean region. Includes discussions of historical and cultural context of the dances. May be repeated.

DAA 3346 Haitian Dance (3). Explores through studio practice, discussion, and readings a variety of Haitian folkloric dance styles within their broader religious, historical, political, and cultural contexts. May be repeated.

DAA 3347 West African Dance (3). A studio exploration of selected dance styles and rhythms attributed to the classical societies of Western Africa. Genres are discussed within broad cultural context. May be repeated.

DAA 3354 Spanish Dance II (3). A continuation of Spanish Dance I stressing the development of musicality while working with rhythms associated with Spanish Dance. Readings and attendance at performances may be required. May be repeated. Prerequisites: DAA 2350 or permission of the instructor.

DAA 3395 Cultural Dance Forms (3). An in-depth focus on specific cultural dance styles (Haitian, Afro-Cuban, etc.) to vary each semester. Studio course. May be repeated.

DAA 3508 Jazz Dance Techniques III (2). A continuation of jazz dance techniques and skills with increased emphasis on developing complex dance combinations and full routines. May be repeated.

DAA 3614 Dance Composition III (3). A further exploration of choreography for the group form. Students will be required to take a concept and complete a work for showing and critique. Prerequisites: DAA 2611 or permission of the instructor.

DAA 3654 Dance Repertory (1). The study and practice of works in repertory. May be repeated. Prerequisite: Permission of the instructor.

DAA 3655 Dance Repertory III (2). The continuation of study and practice of selected works of dance repertory. Prerequisite: Demonstration of competence is required. May be repeated.

DAA 3684 Dance Practicum (1). Dance studio explorations on varied topics. May include repertory, improvisations and technical experiences. Permission of the instructor. May be repeated.

DAA 4110 Modern Dance Techniques IV (3). Advanced modern dance techniques with the major focus on dance as an art form using the body as a medium of expression. Prerequisites: DAA 3108 or permission of the instructor. May be repeated.

DAA 4210 Ballet Techniques IV (3). Further development of strength and form with emphasis placed on perfecting the execution of the classical ballet techniques. Prerequisites: DAA 3208 or permission of the instructor. May be repeated.

DAA 4356 Spanish Dance III (3). A continuation of Spanish Dance II, stressing the development of musicality while working with rhythms associated with Spanish dance. Readings and attendance may be required. May be repeated. Prerequisite: DAA 3354.

DAA 4615 Dance Composition IV (3). Students work on extended choreographic projects with an eye toward developing material for their senior project. Prerequisites: DAA 3614 or permission of the instructor.

DAA 4656 Dance Repertory IV (2). The continuation of study and practice of selected works of dance repertory. Prerequisite: Demonstration of competence is required. May be repeated.

DAA 4905 Directed Study (3-12). Individual study by students under the direction of a faculty member. Topics vary; they are usually selected on an individual basis.

DAA 4930 Special Topics (3). Centers around topics of current interest to the field of dance. Topics vary from semester to semester.

DAA 5348 Advanced African Diaspora Dance (3). Advanced African Diaspora Dance is a studio class, which offers an extensive experience in all elements of Afro-Brazilian dance through the exploration of traditional and contemporary dance forms. Prerequisites: DAA 1341 or DAA 2333 or permission of the instructor.

DAE 3385 Building Community Through the Arts (3). Preparation for arts field experience in a variety of community settings. Students will gain an overall view of community-based art and curriculum design.

DAN 1600 Music for Dance (3). Introductory course in relationships between dance and music. Musical forms, cultural influences and basic accompaniment practices will be covered. Prerequisite: Permission of the instructor.

DAN 2100 Introduction to Dance (3). An overview of dance from a variety of cultural and traditional perspectives. Through film, lecture, and movement, this course explores the diverse ways in which we organize and interpret our life experience as human beings through dance.

DAN 2140 Dance in Modern American Culture (3). Survey/lecture course that investigates dance as a cultural phenomenon in America; 1895-present.

DAN 2160 Entry Seminar (1). An introductory course for those considering majoring in dance: an exploration of curricular requirements; courses; aesthetics; and other relevant topics.

DAN 2500 Dance Production I (2). This course prepares dancers for all aspects of dance concert production including lighting, costuming, props, set designs, budget management, and publicity.

DAN 2580 Production Practicum I (1). Practical assignments in working on dance and theatre productions.

DAN 2602 Sound and Accompaniment for Dance (3). An introductory course for sound and accompaniment for dance. Students learn basic accompaniment techniques and how to develop and create original sound scores. Prerequisites: DAN 1600 or permission of the instructor.

DAN 3150 Performance Studies (3). Introduction to the major philosophical and aesthetic theories of 20th and 21st century choreographers representing a broad socio-historical context. Prerequisite: Permission of the instructor.

DAN 3394 Dance and Culture of Latin America and the Caribbean (3). Team-taught interdisciplinary course offered as a summer institute focusing on Latin America and the Caribbean. Lecture, panels, and studio classes.

DAN 3504 Dance Production II (3). Continuation of theory and practice in elements of dance production.

DAN 3584 Production Practicum II (1). Practical experience in dance production.

DAN 3714 Dance Kinesiology (3). Concert dance is the referent model for studying and analysing human movement. Anatomy, physiology and individual differences considered. Prerequisite: Permission of the instructor.

DAN 3724 Anatomy for Dance (3). An overview of the anatomy and physiology of the body explaining how certain anatomical structures and physiological processes interact to execute movement in a safe and effective manner.

DAN 3724L Anatomy for Dance Lab (1).

DAN 3764 The Art of Yoga and Meditation: Theory and Practicum (3). Through a concentrated study of yoga asanas (postures), mantras (sacred chants), meditation techniques, pranayama (breath control) and philosophical and religious scriptures, students engage in questioning, analysis, and application. Largely a participatory, studio course.

DAN 4125 Contemporary Issues in Choreography (3). Explores the complex historic and current social, political and cultural issues that contemporary choreographers reference in the creation of new works. Prerequisite: DAA 3614.

DAN 4136 Global Perspectives in Dance and Culture I: Theory (3). Cross-cultural, comparative survey of historic and contemporary world dance. Varied topics are explored within a broad cultural context. Team-taught, interdisciplinary methodology.

DAN 4137 Global Perspective in Dance and Culture II: Theory (3). Cross-cultural, comparative survey of historic and contemporary world dance. Exploration of varied historic and geographic regions of world culture.

DAN 4180 Senior Dance Seminar (2). Capstone course in which senior students articulate and plan senior thesis project. Prerequisites: DAN 4137 or permission of the instructor.

DAN 4396 Dance Ethnology (3). A special topics course which will study a specific dance culture from an historical, sociological and anthropological viewpoint. Topic will vary from semester to semester.

DAN 4905 Independent Study (3-12). Individual study by students under the direction of a faculty member. Topics vary; they are usually selected on an individual basis.

DAN 4910 Research (1-5). Supervised individual investigation of special research projects. Credit will vary with the nature and scope of the project. May be repeated.

DAN 4930 Special Topics (3-12). The course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester

DAN 4940 Field Experience (3). Practical application in varied community settings utilizing knowledges acquired in the dance major. Students design an outreach community-based project.

DAN 4970 Senior Thesis (1). Presentation of Senior Thesis project under the direction of faculty advisor. Prerequisite: DAN 4180.

DAN 5388 Dance Ethnology (3). A special topics course which will study a specific dance culture from an historical, sociological and anthropological viewpoint. Topic will vary from semester to semester.

DAN 5398 Latin American and Caribbean Dance and Culture (3). An intensive course offered through a Summer Institute focusing on Latin American and Caribbean dance and culture through seminars, performance techniques, and academic classes.

DAN 5399 Latin American and Caribbean Dance and Culture II (3). An intensive course focusing on Latin American and Caribbean dance and culture through seminars, performance technique, and academic classes.

DAN 5905 Independent Study (3-12). Individual study by students under the direction of a faculty member. Topics vary; they are usually selected on an individual basis.

Speech Communication Department

The speech communication department emphasizes practical communication skills grounded in theoretical bases which recognize the needs of a pluralistic society. Students develop verbal, nonverbal, written, organizational and critical thinking skills that enhance their personal and professional lives.

Courses within the department service various majors as core requirements and core electives although we do not offer a degree in speech communication. The Program also houses a nationally ranked academic debate team that represents the Univeristy at parliamentary debate competitions throughout the year.

COM 3110 Business and Professional Communication (3). Identification of communication situations specific to business and the professions. Analysis of variables related to communication objectives and preparation of oral presentations and business correspondence.

COM 3410 Cultural Communication Patterns of Asia (3). Increases cultural awareness by contrasting and comparing communication patterns between Asian and Western cultures.

COM 3461 Intercultural/Interracial Communication (3). How people communicate cross culturally, interculturally and intraculturally.

ORI 3003 Intermediate Oral Interpretation (3). A continuation of the basic techniques of oral interpretation with emphasis on program development. Programs will include poetry, prose, and drama. Prerequisite: ORI 3000.

ORI 3005 Basic Oral Interpretation (3). Development of the voice as an instrument for expressive interpretation of literature.

SPC 2016 Communication for Business (3). A communication course that emphasizes oral communication skills necessary for the business and professional communities. Concentration on interviewing, public speaking, problem-solving, and leadership skills.

SPC 2050 Voice and Diction (3). Effective voice production, articulation, acceptable pronunciation, accent reduction, intonation, rhythm and phrasing.

SPC 2600 Public Speaking (3). Study of the principles of ethical and effective public speaking, with practice in the construction and delivery of original speeches before an audience.

SPC 3210 Communication Theory (3). Comprehensive introduction to the study of human communication processes including verbal and nonverbal modalities. Key historical and contemporary definitions and concepts in communication theory are reviewed.

SPC 3301 Interpersonal Communication (3). Fundamental principles and terms of human communication study in the interpersonal context. Practical application of definitions, models, and communication rules and competence discussed with emphasis on a variety of relational stages and types.

SPC 3513 Argumentation and Debate (3). Lectures and activities concerned with audience-centered reasoning. Topics include: Nature of argument, analysis, reasoning, evidence, values, and building and refuting arguments. Prerequisites: SPC 2600 or permission of the instructor.

SPC 3514 Argumentation and Debate II (3). Study of all styles of formal and informal debate. Emphasis on construction and use of the brief, debate strategy and delivery. Prerequisites: SPC 2600, SPC 3513 and permission of the instructor.

SPC 3602 Advanced Public Speaking (3). Examines public speaking as a workplace activity and provides students with practical experience. Emphasis is placed on incorporating technology into the different types of speeches. Prerequisites: SPC 2600 or permission of the instructor.

SPC 4445 Corporate Communication Theory and Leadership Dynamics (3). Emphasis on oral communication and leadership skills that are essential for the business community.

Theatre Department

FIL 3001 Introduction to Filmmaking (3). For the beginning student of filmmaking. Survey of the orgins and development of cinematography as an art form. Presentation and technical analysis of selected films.

THE 1020 Introduction to Theatre for Majors (1). An orientation to the study, theory, and practice of theatre for freshman theatre majors. It provides the foundation for theatre study at more advanced levels. Prerequisite: Permission of the instructor. (F)

THE 2000 Theatre Appreciation (3). A study of theatre: process and product, introducing the past of theatre, its literature and traditions; and the means by which theatre is produced: acting, directing and visual design. (F,S)

THE 2051 Children's Theatre (3). Techniques of selection, production, and performance of plays for children.

THE 2820 Creative Dramatics (3). The study of informal drama activity with children. Techniques of improvisation, sense recall, music, and movement are employed.

THE 4110 Theatre History I (3). The development of the theatre from its origins to the early 19th century. (F)

THE 4111 Theatre History II (3). The development of the theatre from early 19th century to the present. (S)

THE 4314 Classical Dramatic Literature (3). Intensive play reading and discussion of plays from the classical canon, including Greek, Roman, Medieval, Renaissance and Restoration dramas. Prerequisites: THE 1020 or THE 2000.

THE 4370 Modern Dramatic Literature (3). Intensive play reading and discussion from early modern through contemporary. (F)

THE 4760 Methods of Teaching Theatre (3). Theory and practice in developing skills as a high school director/teacher. Review texts and resource materials, develop a theatre education philosophy and practice teaching strategies. Prerequisite: Permission of the instructor.

THE 4916 Research (1-5). Supervised individual investigation of special research projects. Credit will vary with the nature and scope of the project. May be repeated.

THE 4930 Senior Seminar (2). Theories of theatre presentation. Reading, seminar presentations and discussions cover the theories of playwriting, dramatic forms, acting, directing, design and theatrical criticism. Prerequisite: Theatre major. (S)

THE 4950 Theatre Internship (1-6). Supervised internship in a professional company in acting, directing, stage management, design, technical theatre, or theatre management. Repeatable one time for credit. Prerequisite: Permission of the instructor.

THE 4971 Senior Projects (1). Final preparation and performance or presentation of a creative project in the student's area of emphasis under the direction of a faculty advisor. Theatre majors only.

THE 4972 Senior Thesis (1). Research and writing of a thesis dealing with an aspect of theatre history and/or theory. Prerequisite: Permission of the advisor.

TPA 1320L Technical Skills I – Scene Shop (1). Fundamentals of technical theatre. Emphasis on scene shop.

TPA 1321L Technical Skills II – Costume Shop (1). Fundamentals of technical theatre. Emphasis on costume shop.

TPA 2001L Production Participation Lab (1). Students perform technical work on theatre productions. Required each term for theatre majors not taking a technical production course. Must be repeated for a total of 2 credits.

TPA 2010 Introduction to Design (3). An introduction to the concept of basic design elements and development of visual vocabulary as a prerequisite for Scenic, Lighting and Costume Design. Lecture and Laboratory. Prerequisite: TPA 2210. (F, S)

TPA 2210 Stagecraft I (3). An introduction to construction techniques used in stage. Direct experience with wood and metal working tools, blueprint reading, and various materials including wood, metal, plastics and fabrics. Lecture and laboratory. Prerequisite: Permission of advisor. (F,S)

TPA 2211 Stagecraft II (3). Advanced problems in the construction and movement of scenery, properties, and special effects. Prerequisite: TPA 2210.

TPA 2220 Stage Lighting (3). Familiarization with stage lighting equipment, purposes, and aesthetics of stage lighting; development of an approach to designing lighting; practical experience in the use of equipment. Lecture and laboratory.

TPA 2248 Stage Make-up (3). Facial analysis, color matching, makeup design and application techniques of makeup for the stage. Includes character analysis and history of makeup styles. Prerequisite: Permission of the instructor. (S)

TPA 2290L Technical Theatre Lab I (1). Supervised crew work in construction, painting, lighting, costuming, and running major productions. Required of Theatre majors. (F,S)

TPA 2291L Technical Theatre Lab II (1). Supervised crew work. Required of Theatre majors. (F,S)

TPA 2292L Technical Theatre Lab III (1). Supervised crew work. Required of Theatre majors. (F,S)

TPA 3002 Period Styles in Theatre Design (3). An introduction to period styles and ornament and how it applies to Theatre Design. Prerequisite: TPA 2010.

TPA 3040 Costume Design I (3). The theory and practice of designing stage costumes through play and character analysis, research, and translation of this information into effective stage costume designs. Prerequisites: TPA 3230 and permission of the instructor.

TPA 3060 Scenic Design I (3) Nontraditional approaches to the development of design elements for the stage. Prerequisite: TPA 2210.

TPA 3071 Stage Rendering (3). An introduction to the Techniques used in rendering scenery and costume design concepts. Recommended as preparation for TPA 3060.

TPA 3077 Scene Painting (3). A hands-on study of the basic techniques and processes used by scenic artists.

TPA 3230 Stage Costuming (3). Costume history and costume construction techniques, as well as the basics of the design process, fabric identification, and manipulation. Corequisites: TPA 2290, 2291, 2292, or 3292. (F,S)

TPA 3293L Technical Theatre Lab IV (1). Supervised crew work. Required of Theatre majors. Prerequisite: TPA 2292L. (F,S)

TPA 3296 Advanced Technical Project I (2). Advanced practical projects in theatre design and technology in support of produced departmental productions. Projects are assigned to the student on the basis of emphasis and experience. Prerequisite: Permission of the instructor.

TPA 3930 Special Topics in Theatre (1-3). Lecture-lab studies in particular areas of theatre production, one area per semester, including stage management, prop making, sound design, special effects. May be repeated 3 times for up to 9 credits. Prerequisite: TPA 2210.

TPA 4041 Costume Design II (3). A continuation of Costume Design I, with increased emphasis on refining skills developed at first design level, plus developing a personal design style and more advanced construction skills. Prerequisite: TPA 3040.

TPA 4061 Scenic Design II (3). Advanced skills in setting the mood of, and creating movement through a theatrical space. Emphasis will be placed upon rendering Techniques and model making. Prerequisite: TPA 3060.

TPA 4221 Stage Lighting II (3). Advance work in lighting of the stage. Emphasis is on practical training and experience through drafting of light plots accompanied by discussion and evaluation. Prerequisite: TPA 2220.

TPA 4297 Advanced Technical Project II (2). Advanced practical projects in theatre design and technology in support of produced departmental productions. Projects are assigned to the student on the basis of emphasis and experience. Prerequisite: Permission of the instructor.

TPA 4298 Advanced Technical Project III (2). Advanced practical projects in theatre design and technology in support of produced departmental productions. Projects are assigned to the student on the basis of emphasis and experience. Prerequisite: Permission of the instructor.

TPA 4400 Stage and Theatre Management (3). A two part course introducing practical methods of stage management and aspects of theatre administration: marketing, budgeting, box office, fund raising.

TPA 5025 Performance Lighting (2). An introduction to lighting for entertainment art's performances such as those presented at theme parks, concerts and outdoor performances. Prerequisite: Permission of graduate area advisor.

TPP 1110 Acting I (2). An introduction to the acting process using an improvisational approach, includes theatre games and exercises by Spolin, Johnstone, and Boal. Majors only. Corequisite: THE 1020 (F)

TPP 2100 Introduction to Acting (3). An introduction to the acting process. Self awareness, physical and vocal control, basic stage techniques and beginning scene work will be studied. Intended for the student with little or no acting experience. (F,S)

TPP 2111 Acting II (3). Moves from improvisation to scripted scene study. Explores use of self and the basics of the acting process. Majors only. Prerequisites: TPP 1110 and permission of the advisor. (S)

TPP 2112 Acting III (3). The application of different acting theories to scenes from contemporary plays. Majors only. Prerequisite: Permission of the instructor. (F)

TPP 2160 Theatre Voice and Movement I (3). Development of the actor's voice and body for the demands of clear performance. An exploration of proper vocal production and movement fundamentals. Prerequisite: Permission of the instructor.

TPP 2161 Theatre Voice and Movement II (3). A continuation of development of the actor's voice and body for clear performance. Emphasis on standard speech, scansion and physical characterization. Prerequisite: TPP 2160 . Corequisite: TPP 3113.

TPP 3113 Acting IV (3). Continuation of the development and training of acting skills with emphasis on transformational character choices. Scene work in modern styles from playwrights such as O'Neill, Williams, Fornes, and Lorca. Majors only. Prerequisites: TPP 2112 and permission of the instructor. (S)

TPP 3164 Theatre Voice and Movement III (3). Laban, Feldenkrais, and Neutral Mask will be studied to improve self-use and body articulation. Emphasis on handling heightened texts such as Shakespeare. Prerequisite: Audition for B.F.A. program. Corequisite: TPP 4114. (F)

TPP 3165 Theatre Voice and Movement IV (3). Exploration of physical and vocal approaches to American Musical Theatre from 1920 to the present. Prerequisite: TPP 3164. (S)

TPP 3263 Film Acting for Non-Majors (3). An introduction to the acting process for film and TV. Emphasis on acting, directing and writing process behind and in front of the camera.

TPP 3265 Introduction to Acting for TV/Film (3). An introduction to the fundamentals of acting/directing for TV/Film through practical exercise and creative assignments.

TPP 3304 Playscript Analysis (3). Detailed playscript examination for directors, actors and designers, focusing on identification of those elements upon which successful theatre production depends. Prerequisite: Permission of the advisor. (F)

TPP 3310 Directing I (3). Basic principles of play direction; including problems of selecting, analyzing, casting, and rehearsing plays, script analysis. Prerequisite: TPP 2112. (F,S)

TPP 3730 Dialects (3). A study of dialects common to western theatre. Prerequisites: TPP 3165 or permission of the advisor.

TPP 3923 Musical Theatre Workshop I (3). An introduction to Musical Comedy performance: integration of the dramatic, musical and movement components will be studied through work on selected scenes. Prerequisite: Permission of the advisor.

TPP 4114 Acting V (3). Classical styles of acting, scene study focusing on Shakespeare and the Restoration. BFA majors only. Prerequisites: TPP 3113 and permission of the instructor. Corequisite: TPP 3164. (F)

TPP 4117 Acting VI (3). Scene study focusing on dramatists such as Chekov, Ibsen, Strinberg, Shaw. BFA majors only. Prerequisites: TPP 4114 and permission of the instructor. Corequisite: TPP 3165. (S)

TPP 4166 Voice and Movement V (3). The Study of dialects, vocal characterization and voice-over. Complex physical characterization exploration using character mask work. Prerequisite: TPP 3165. Corequisite: TPP 4224.

TPP 4195L Upper Division Production and Performance (1). Exploration of the acting process through rehearsal and performance of a play. Class must be repeated 3 times for 3 credits. Prerequisite: Permission of the instructor.

TPP 4224 Acting VII (3). Audition techniques through preparation and presentation of audition material. Includes an exploration of professional actor training and actor business protocol. BFA majors only. Prerequisites: TPP 4117, TPP 3165 and permission of the advisor. (F)

TPP 4253 Advanced Musical Theatre Studies (3). Prepares students to audition for all types of musical theatre productions. Class format is a master class. Prerequisites: BFA Student – TPP 3165.

TPP 4265 Acting VIII (3). A comprehensive course in the study of acting, writing and directing for the camera – documentary, dramatic scenes, commercials – offered in conjunction with Channel 17. BFA majors only. Prerequisite: TPP 4224. (S)

TPP 4311 Directing II (3). A continued study of directing Techniques culminating in the preparation of a play for public performance. Prerequisites: TPP 3310 and permission of the advisor.

TPP 4531 Stage Combat (3). A study of combat techniques for the stage, including fencing, boxing, wrestling, and tumbling.

TPP 4564 Mime (3). A movement course to teach the actor the physical skill of mime. This course will improve the students attention, strength, balance, dexterity and clarity.

TPP 4600 Playwriting I (3). Study of the theory and principles of writing plays for the stage. Practice in writing either the short or long play. May be repeated.

TPP 4601 Playwriting II (3). A continuation of the study of the theory and principle of writing plays for the stage. Actual practice in writing plays. Prerequisite: TPP 4600.

TPP 4920 Advanced Actor's Workshop I (3). This course will concentrate on the acting demands of a specific period, style, genre, or playwright. Prerequisites: TPP 4114 or permission of the advisor.

TPP 4930 Special Topics in Theatre Performance (1-3). Studio sessions covering selected topics of current interest in theatre performance. Prerequisite: Permission of the instructor.

TPP 5615 Graduate Playwriting Workshop I (3). A graduate course in playwriting focusing on structure, character development, conflict dialogue, and dramatic action. Students work through a series of exercises exploring different techniques leading to the development of a 10 minute play and a full length play. Students read and discuss scenes in class. Prerequisite: Permission of the instructor.

TPP 5616 Graduate Playwriting Workshop II (3). For graduate students in the Creative Writing program who wish to continue with a second playwriting class. Students work on exercises and scenes leading to the development of a full length play. Prerequisites: One course in playwriting or screenwriting.

TPP 5617 Graduate Playwriting Workshop III (3). A graduate course in playwriting focusing on the development of a full length play with special attention to structure, character development conflict, dialogue, and dramatic action. Students work through a series of scenes leading to the development of a full length play. Prerequisite: TPP 5616.

THE PATRICIA & PHILLIP FROST ART MUSEUM

Marta de la Torre, *Interim Director*
Debbye Kirshtel-Taylor, *Registrar and Curator of Collections*
Caroline Parker, *Curator of Education*

The Patricia & Phillip Frost Art Museum on the University Park Campus is an arts resource for the university and surrounding communities in South Florida. Its mission is to enrich and educate diverse audiences through the language of art by collecting, preserving, researching and interpreting a broad range of arts from around the world. The museum is the repository of over 6,000 works of art including the Coral Gables Metropolitan Museum and Art Center Collection, the Oscar B. Cintas Fellows Collection, and the Betty Laird Perry Emerging Artist Collection.

The Patricia & Phillip Frost Art Musuem amplifies the impact of its exhibitions with a wide range of regionally unique and nationally recognized educational programs. The Steven & Dorothea Green Critics' Lecture Series and the Latin American & Caribbean Art Lecture Series present South Florida's diverse audiences with programming that includes art world luminaries and renowned artists, critics, curators, designers and scholars. The museum offers event programs such as **Wednesday After-Hours**, which gives visitors the chance to engage with the contemporary and confront the controversial with talks, films, live music and art. The museum also offers guided tours of the current exhibition and the Sculpture Park.

The museum's educational programs are designed to nurture and increase each participant's knowledge of art, honor its mission to serve people of all ages, means and backgrounds, including the culturally diverse FIU community and residents of and visitors to South Florida. The Patricia & Phillip Frost Art Museum develops a significant series of public programs in conjunction with the major exhibitions it borrows and organizes each year.

Additionally, The Patricia & Phillip Frost Art Museum works with Miami-Dade County Public Schools to deliver tours of interdisciplinary training for instructors that reach more than 12,000 teachers and students annually.

In conjunction with the School of Art and Art History, the Graduate Certificate in Museum Studies is an 18-credit program intended to prepare individuals for employment in museums, historic preservation, and collection management. The program offers graduate level courses in various associated academic disciplines with special projects and on-line courses appropriate for specific museum work. Courses are for students interested in museum careers and for people currently employed in museums who want to expand their theoretical base and their knowledge of best professional practices. The program is designed to provide the students with a strong theoretical basis and a broad understanding of museum practice and history. For further information on the program, refer to the School of Art and Art History.

Student and faculty exhibitions are an important component of the museum's academic function and present the work of artists who have gone on to receive state and national recognition, including National Endowment for the Arts, MacArthur Foundation, Guggenheim Fellowship Award and Florida Visual Artist grants and fellowships. The Betty Laird Perry Emerging Artist Collection was established with work acquired through the Betty Laird Perry Purchase Award, which is granted to selected BFA and MFA students graduating from the FIU programs in visual arts.

College of Architecture and The Arts

Dean **Juan Antonio Bueno**
Associate Dean, Administration **David F. Bergwall**
Associate Dean, Academic Affairs **Kristine H. Burns**

Faculty

Abbott, Phillip, MID *(University of Florida), Assistant Professor, Interior Design*
Andia, Alfredo, MDes, PhD *(University of California-Berkeley), Associate Professor, Architecture*
Arias, Javier, Artist Diploma *(University of Cincinnati), Instructor, String/Orchestral Studies, Amernet String Quartet*
Arpad, Tori, MFA *(University of Arizona), Associate Professor, Ceramics*
Augenblick, John, DMA *(University of Miami), Associate Professor and Coordinator, Vocal/Choral Studies*
Belcher, Nathaniel Q., MArch, AIA *(Harvard University), Associate Professor, Architecture and Director, School of Architecture*
Bergwall, David F., MBA, DBA *(George Washington University), Associate Professor and Associate Dean, College of Architecture and The Arts*
Brant, Sharon, MFA *(University of Wyoming), Assistant Professor, Painting/Drawing*
Buckley, Ralph, MFA *(Maryland Institute), Professor, Sculpture*
Bueno, Juan Antonio, MLA, ASLA, PE *(Harvard University), Professor, Landscape Architecture and Dean, College of Architecture and The Arts*
Burke, William, MFA *(State University of New York at New Paltz), Professor, Ceramics and Assistant Director, Graduate Studies, School of Art and Art History*
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Canavés, Marta, MLA, ASLA, IIDA *(Florida International University), Associate in Design and Chair, Landscape Architecture Department*
Chandler, Jason R., MArch, AIA *(Harvard University), Assistant Professor, Architecture*
Church, Phillip, MFA *(University of California-Irvine), Associate Professor, Theatre*
Dambach, Kathy, MFA *(Ohio State University and Wayne State University), Professor, Art*
Damian, Carol, PhD *(University of Miami), Professor, Art History*
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de la Torre, Marta, MA *(American University), Interim Director, Frost Art Museum and Coordinator, Museum Studies Program*
del Valle, Eduardo, MFA *(Brooklyn College, City University of New York), Professor, Photography*
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Galand, Joel, PhD *(Yale University), Assistant Professor, Music Theory/History and Assistant Director, Graduate Studies, School of Music*
Garcia, Orlando, DMA *(University of Miami), Professor and Coordinator, Composition/Music Technology*
Gekić, Kemal, MA *(University of Novi Sad, Yugoslavia), Professor and Artist-in-Residence, Keyboard Studies*
George, Jr., Roby, DMA *(University of Cincinnati), Associate Professor and Coordinator Wind, Brass and Percussion Studies*
Goldemberg, Eric M., MSAAD *(Columbia University), Assistant Professor, Architecture*
Gómez, Mirta, MFA *(Brooklyn College, City University of New York), Professor, Photography*
Guernsey, Daniel, PhD *(University of Wisconsin-Madison), Associate Professor, Art History*
Hacker, James, BA *(University of Miami), Instructor, Wind, Brass and Percussion Studies*
Hagood, Thomas, PhD *(University of Wisconsin-Madison), Associate Professor and Chair, Dance*
Kaufman, Fredrick, MM *(Manhattan School of Music), Professor and Artist-in-Residence, Composition/Music Technology*
Kaufman, Nicole, MS *(Florida International University), Coordinator, Museum Operations, Frost Art Museum*
King, Clive, ATC, PhD *(University of London), Professor, Drawing*
King, Janine MID *(University of Oregon), Associate Professor and Chair, Interior Design Department*
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Littley de Arias, Marcia, Artist Diploma *(University of Cincinnati), Instructor, String/Orchestral Studies, Amernet String Quartet*
López-Mata, Gisela, MS *(Pratt Institute), Associate Professor, Interior Design Department*
López, Jose, DMA *(University of Miami), Visiting Professor and Coordinator, Keyboard Studies*
Lund, Gary, BFA *(Florida International University), Instructor, Dance*
Lussier, Sam, Ed.D *(Florida International University), Assistant Professor and Coordinator, Jazz Performance*
Maguire, William, MS *(Illinois Institute of Technology), Professor, Photography*
Mantell-Seidel, Andrea, DA *(New York University), Associate Professor, Dance*
Martinez, Juan A., PhD *(Florida State University), Professor, Art History and Director, School of Art and Art History*
McElfresh, Clair, DMA *(Case Western Reserve University), Professor Emeritus, Vocal/Choral Studies*
Neal, Leslie, MFA *(Florida State University), Associate Professor, Dance*

Nepomechie, Marilys, MArch, FAIA *(Massachusetts Institute of Technology), Associate Professor, Architecture Department*
Orta, Michael, MM *(University of Miami), Associate Professor, Jazz Performance*
Ozer, Ebru, MLA *(Louisiana State University), Assistant Professor, Landscape Architecture*
Parker, Caroline, BA *(Florida International University), Coordinator, Museum Operations, Frost Art Museum*
Quintana, Nicolás, NCARB *(Arquitecto Universidad de La Habana), Scholar in Architecture and Urbanism, Architecture*
Read, Gray, MArch, PhD, RA *(University of Pennsylvania), Assistant Professor, Architecture*
Riazuelo, Carlos *(Juan Manuel Olivares School, Venezuela), Associate Professor and Coordinator, String/Orchestral Studies*
Rifkind, David, MArch, PhD *(Columbia University), Assistant Professor, Architecture*
Robinson, Wayne, MFA *(National Theatre Conservatory), Associate Professor, Theatre*
Rohm, Joseph, PhD *(Florida State University), Associate Professor, Music Theory/History*
Rosales, Camilo, MArch, RA *(Harvard University), Associate Professor, Architecture*
Rovira, Roberto, MLA *(Rhode Island School of Design), Assistant Professor, Landscape Architecture*
Sandoval, Arturo *(Escuela Nacional de Bellas Artes, Habana, Cuba), Professor and Artist-in-Residence, Jazz Performance*
Schriner, Brian, MA *(University of Miami), Instructor and Chair, Speech Communication Department*
Skow, Marilyn, MPh *(Columbia University), Associate Professor, Theatre*
Soledade, Augusto, MFA *(SUNY-Brockport), Assistant Professor, Theatre and Dance*
Steeler, Charles, BFA *(Pacific Northwest College of Art), Coordinator, Museum Operations, Frost Art Museum*
Stuart, John A., MArch, AIA *(Columbia University), Associate Professor, Architecture*
Thomas, Susan, BFA *(Temple University), Coordinator, Museum Operations, Frost Art Museum*
Timlick, Lesley-Ann, MFA *(University of California-Davis), Associate Professor, Theatre and Director, School of Theatre, Dance and Speech Communication*
Torres, Manuel, PhD *(University of New Mexico), Professor, Art History*
Vitenson, Michael, MM *(The Julliard School), Instructor, String/Orchestral Studies, Amernet String Quartet*
Watts, Barbara, PhD *(University of Virginia), Associate Professor, Art History*
Wilson, Kathleen, EdD *(Columbia University), Professor, Vocal/Choral Studies and Director, School of Music*

FLORIDA INTERNATIONAL UNIVERSITY

COLLEGE OF

arts and sciences

College of Arts and Sciences

Dean, (Interim) **Mark D. Szuchman**
Associate Dean, College Relations **Gisela Casines**
Associate Dean, Budget and Facilities **Kenneth G. Furton**
Associate Dean, Biscayne Bay Campus, **Joyce Peterson**
Assistant Dean, Advising **Kenton Harris**

The mission of the College of Arts and Sciences is to teach, engage in research and creative artistic activity, and serve the community. This mission derives from the College's traditional focus on the fundamental intellectual disciplines and the premise that a coherent and intellectually rigorous curriculum of the humanities, arts, mathematics, and the social and natural sciences is the foundation for excellence in any undergraduate education. The College provides such programs for students enrolled in the Unversity's Core Curriculum and offers elective courses for students who seek degrees from the University's other colleges and schools. Many professional degree programs require courses in specific Arts and Sciences disciplines; these needs are carefully addressed.

The College's mission goes beyond introductory and service courses by exploring the full implications of the arts and sciences disciplines in historical and contemporary society. High quality undergraduate degree programs educate students in the fundamentals of each discipline. Graduate programs provide in-depth training for the best students and allow faculty members the opportunity to teach at the frontiers of their fields. Rigorous academic research, scholarship, and creative activity are integral components of faculty activities in all disciplines and are the heart of graduate education.

Characteristically, the liberal arts endeavor is to synthesize. Thus, in addition to traditional degree programs, the College coordinates special areas and interests through a number of certificate and interdisciplinary degree programs.

The College is composed of 17 departments and several interdisciplinary programs.

Undergraduate Programs

The College offers departmental programs of study leading to Bachelor's degrees in biological sciences, chemistry, earth sciences, economics, English, environmental studies, French, geography, geosciences, history, international relations, marine biology, mathematics, mathematical sciences, philosophy, physics, political science, Portuguese, psychology, religious studies, sociology and anthropology, Spanish, and statistics. The College also offers interdisciplinary programs leading to Bachelor's degrees in Asian studies, humanities, liberal studies, and women's studies. A labor studies concentration is available in the liberal studies program.

Minor programs of study are offered in asian studies, astronomy, biology, chemistry, economics, English, environmental studies, French language and culture, general translation studies, geography, geology, history, humanities, international relations, marine biology, mathematical sciences, mathematics, philosophy, physics, political science, Portuguese, psychology, religious studies, sociology and anthropology, Spanish language and culture, and statistics.

Certificate Programs

Students can earn through the College certificates in the following: Actuarial Studies, African Studies, African-New World Studies, Agroecology, American Studies, Ancient Mediterranean Civilization, Asian Studies, Asian Globalization and Latin American Studies, Chinese Studies, Comparative Immunology, Cuban and Cuban-American Studies, Environmental Studies, Ethnic Studies, European Studies, Film Studies, Forensic Science, Gerontological Studies, Japanese Studies, Judaic Studies, Labor Studies, Latin American and Caribbean Studies, Law, Ethics and Society, Legal Translation and Court Interpreting, Linguistic Studies, Middle East and Central Asian Studies, National Security Studies, Portuguese Interpretation Studies, Portuguese Translation Studies, Pre-Modern Cultures, Professional Language, Public Policy Studies, South Asian Studies, Translation Studies, and Women's Studies.

Admission

FIU freshmen and sophomore students may be coded with an "intended" major in the College upon earning 24 semester hours.

They may be fully admitted to the College if they have earned 60 semester hours, have a cumulative grade point average (GPA) of 2.0, and have passed the CLAST. Full admission to the College is accomplished by filing the form "Request for Acceptance into Upper Division College/School."

A transfer student having an Associate in Arts degree from a Florida community college or having completed the equivalent coursework at a four-year institution with a minimum of 60 semester hours earned, having a cumulative grade point average (GPA) of 2.0, and having passed the CLAST may be admitted to a program in the College. Applicants must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the College.

All students are encouraged to seek advising as early as possible in the department/program of their choice, even if they have not yet been fully admitted into that major.

College Requirements for a Baccalaureate Degree

Candidates to the Bachelor's degree must satisfy individual departmental requirements, and the following College requirements, in addition to the University-wide requirements listed elsewhere:

1. A minimum of 120 semester hours in acceptable coursework is required.
2. At least half of the upper division credits in any major must have been taken in at FIU.
3. In the last 60 semester hours of enrollment, students must earn nine semester hours of elective credits through coursework outside the major, six of which are to be taken outside the department sponsoring the program.

4. Students must earn a grade of "C" or higher in all courses required for the major. A grade of "C-" or lower is not acceptable in any required course.

5. Of the total number of hours submitted for graduation, a minimum of 48 semester hours must be in upper division courses.

6. Students must demonstrate competency in a foreign language or in American Sign Language at the level of the second semester of a college language sequence. (High school courses cannot be used to fulfill this requirement.) This requirement may be met by successfully completing with a grade of 'C' or better (C- does not count): a) the second semester of a two-semester sequence basic language course or b) any second-year or third-year foreign language course. This requirement may also be fulfilled by presenting acceptable scores in the Advanced Placement Exam, the SAT II, the CLEP exam, or other approved instruments. Students should consult their advisors for more specific information.

7. One- and two-credit physical activity courses (with the prefixes PEL, PEM, PEN) cannot be included as part of the hours needed for graduation.

College Requirements for a Minor

Students who desire to earn a minor must satisfy individual departmental/program requirements and the following College requirements:

1. At least half of the courses used to fulfill the requirements must have been taken at FIU.

2. Earn a grade of "C" or higher in all courses required for the minor. A grade of "C-" or lower is not acceptable in any required course.

***Note*:** The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Education and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Phi Beta Kappa

The College of Arts and Sciences is home to the Epsilon chapter of Phi Beta Kappa, the nation's most prestigious honor society. Established in 1776 at the College of William and Mary, this society is exclusively for arts and sciences majors who have studied broadly in a variety of its disciplines.

Membership is by invitation not by application. During the semester when students graduate, they are evaluated by the chapter to determine their eligibility. Summer graduates are considered during the succeeding fall semester. The chapter committee examines not only the student's grade point average, but also the breadth and rigor of coursework in the arts and sciences. In particular, candidates need to demonstrate knowledge of mathematics and of a foreign language at least minimally appropriate for liberal education.

Students who wish further information on the requirements for membership should contact Professors Rosemary Hickey-Vargas (Earth Sciences) or Leonard Keller (Chemistry/Liberal Studies).

Interdisciplinary Courses

The College of Arts and Sciences has several interdisciplinary programs which are not based in a specific academic department. The courses offered by these programs therefore are not found in the departmental listings in the Catalog. For this reason, they are included here.

ASN 3042 Asian Religions and the Arts (3). Examines the richly diverse and complex forms of art and artistic expression in the various Asian religions against the background of their respective cultural settings.

ASN 3403 Zen and the Art of Tea Ceremony (3). An introduction to the cultural traditions and social behavior of Asia that covers the history, theory, and practice of Chado, or Way of Tea, a Zen-Buddhist inspired art.

ASN 3410 Introduction to East Asia (3). An overview of East Asia from traditional to modern times including the interaction among Asian cultures as well as between Asia and the world.

ASN 4510 Dynamics of Asia (3). An interdisciplinary study of the classical and contemporary periods in Asian civilizations, including tradition and modernization, culture and the arts, gender and diversity, and international relations.

ASN 4911 Independent Research in Asian Studies (1-6). Topics selected to meet academic needs for students doing research in same special area in Asian Studies. Prerequisite: Permission of the instructor.

ASN 5315 Survey of Modern Asia (3). Focus on modernization, or the transition from pre-modern (classical and medieval) to elements of the modern, including westernization, industrialization, and the roles of capitalism, communism, imperialism, and colonialism, as well as the impact of post-colonialism and post-modern society in Asia.

ASN 5910 Independent Research in Asian Studies (1-6). Topics will be selected to meet academic needs for students doing research in some specialized area of asian studies. Prerequisite: Permission of the instructor.

IDH 1931 Honors Leadership Seminar (1). An introduction to principles of leadership necessary for advancement within the institution and beyond graduation. Prerequisite: SLS 1501. Corequisite: IDH 1002.

ISC 4947 Entrepreneurial Science Internship (1-20). Internship in a faculty laboratory with emphasis on finding commercial applications of the laboratory's ongoing research. May be repeated. Prerequisite: GEB 4113.

LAS 5955 Haiti Study Abroad (3). Study abroad examination of Haitian Politics and Society. Part of Haitian Summer Institute. Prerequisite: Graduate standing.

LIS 2005 Information and Internet Research (3). Development of research skills as they apply to using both academic libraries and internet. Includes critical thinking skills in relation to the use and application of information.

SLS 1501 First Year Experience (1). A review of basic skills and competencies necessary to college success including time management, study skills, and academic policies/procedures. Includes mandated information.

African-New World Program Undergraduate Courses

AFA 2000 African World-Introduction (3). A core requirement for those considering a certificate or major in African-New World Studies. Key ideas, thinkers, theories, and geographical locations of peoples and culture of the African diaspora.

AFA 3153 African Civilization, Religion and Philosophy (3). An introductory level overview of Ancient African origins of Civilization, Religion and Philosophy. Prerequisites: AFA 2000 or approval of director.

AFA 4104 Teaching the African-American Experience (3). Teachers Institute which includes literature, culture, history, politics, and the arts designed to meet Florida State Teachers Certification requirements. Includes instruction on pedagogy, teaching methods and FCAT.

AFA 4905 Independent Study (0-6). Student-generated research projects in African-New World Studies. Independent investigations, reports on individual and assigned readings with ANWS core and affiliated faculty.

AFA 4930 African-New World Studies: Theory & Methods Seminar (3). The nature, meaning and intent of intellectual production in Africa and the diaspora. Examines the works of key thinkers that have made visible some of the submerged or appropriated realities of African peoples.

AFA 4931 Special Topics in African-New World Studies (3). An examination of different features of African-New World Studies, not normally offered in the basic curriculum or otherwise offered. May be repeated.

AFA 4933 Special Topics in Black Transnationalism (3). A course designed to give groups of students special studies in the black experience transnationally. Prerequisite: AFA 2000.

AFA 4941 ANWS Internship (0-6). Practical application in a supervised setting outside of the classroom of knowledge acquired in the classroom. Consent of faculty sponsor and program director required.

LAH 4460 Peoples, Culture and Politics of Haiti (3). An introduction to the cultures and history of the Haitian people from Africa to the New World. The students will become familiar to the life, cultures of the Indians of the Caribbean: Taino, Arawak and Caribs.

LAH 5465 Peoples, Culture and Politics of Haiti (3). Advanced study of the cultures and history of the Haitian people from Africa to the New World, including life, cultures of the Indians of the Caribbean: Taino, Arawak and Caribs.

European Studies

EUS 4920 Colloquium: European Studies (3). Interdisciplinary course, co-taught by faculty from the humanities and social sciences, provides students a comprehensive picture on a subject relevant to modern Europe. Topics will vary.

Social Science Interdisciplinary

ISS 3240 World Prospects and Issues (3). This course examines, from a multidisciplinary point of view, specific global issues such as food, population, and arms control. The issues discussed may change from one semester to the next.

ISS 4165 Sustainable Communities Seminar (3). Explores theories and aspects of sustainable communities, and considers the concept in comparative-historical, local-global, and critical perspective. Prerequisite: Permission of the instructor.

ISS 4234 Cultural Expressions of the Americas (3). This interdisciplinary course focuses on national, cultural, and racial identities, as well as the performance of race and gender, as expressed in cultural productions of the Americas.

ISS 4235 The Cultural Body in the Americas: Critical Issues in Intercultural Understanding (3). With a team-taught interdisciplinary approach this course explores the diverse symbols, hierarchies, and meanings invoked through culturally constructed human bodies and body movement in the Americas.

ISS 5166 Sustainable Communities Seminar (3). Explores theories and aspects of sustainable communities, and considers the concept in comparative-historical, local-global, and critical perspective. Prerequisite: Permission of the instructor.

ISS 5237 Latin American and Caribbean Cultural Expressions (3). This interdisciplinary course develops an interdisciplinary approach to the study of national, cultural, and racial identities, as expressed in cultural productions of the Latin America and the Caribbean.

ISS 5238 The Imaged Body: The Case of the Americas (3). With a team-taught interdisciplinary approach this course explores how identity, power and hierarchy are invoked and represented through the human body and body movement in the region of the Americas.

Asian Studies

Steven Heine, *Director, Religious Studies and History*
Affiliated Faculty:
Mahadev Bhat, *Environmental Studies and Economics*
Bongkil Chung, *Philosophy*
Asuka Haraguchi, *Modern Languages*
Nathan Katz, *Religious Studies*
Paul Kowert, *International Relations*
Li Ma, *Modern Languages*
Eric Messersmith, *Asian Studies*
Laura Nenzi, *History*

Bachelor of Arts in Asian Studies

The B.A. degree in Asian Studies is an interdisciplinary program that draws on faculty from the College of Arts and Sciences and other professional schools at FIU. The courses are coordinated by the Institute for Asian Studies, which also sponsors workshops, lectures, cultural events, and study abroad programs.

Like the certificate program in Asian Studies, the bachelor's program provides students with a rich learning experience about a fascinating and increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program provides a multidisciplinary approach covering the philosophy, religion, art history, language and literature of Asia as well as issues in history, politics, geography, sociology/anthropology, and international relations.

The B.A. has two concentrations: **International Political Economy of Asia**, emphasizes social scientific studies involving economics, international relations, politics, and sociology; and **Asian Cultural Studies**, emphasizes the humanities and arts disciplinary approaches.

For further information please contact the Institute for Asian Studies, located at DM 300B, at asian@fiu.edu or at (305) 348-1914. Also, visit our website at http://asian.fiu.edu.

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST or its equivalent, completed 60 semester hours, and be otherwise acceptable into the program.

Upper Division Program

The Major requires 30 hours of upper division course work. Students who elect a major in Asian Studies are required to declare a major in another department or discipline, and should consult with the advisors of both majors on regular basis prior to graduation.

Common Requirements (both concentrations)

Language Requirements (3 credits)

Four Semesters of Chinese, Japanese, or other Asian Language.

Core Courses (27 credits)

1. 18 credits from the Asian Studies courses list pertaining to the main concentration. (9 credits allowed in comparative courses)
2. 6 credits in the other concentration or in advanced language courses
3. 3 credits in a supervised research course (ASN 4000-level)
4. Students may receive credits through a Study Abroad courses or an Internship program

International Political Economy of Asia Concentration Electives:

CHI 3440	Chinese for Business
CPO 3502	Politics of the Far East
CPO 4507	Comparative Political Economy of Asia
CPO 4541	Politics of China
CPO 4553	Government Politics of Japan
ECO 4701	World Economy
ECO 4703	International Trade Theory and Policy
ECS 3003	Comparative Economic Systems
ECS 3200	Economics of Asia
ECS 3704	International Economics
FIN 3652	Asian Financial Markets and Institutions
GEA 3705	Geography of Central Asia and the Caucuses
INR 3081	Contemporary International Problems
INR 3223	Japan and the US
INR 3224	International Relations of East Asia
INR 3226	International Relations of Central Asia and the Caucuses
INR 3232	International Relations of China
INR 3262	International Relations of Russia and the Former USSR
INR 3703	International Political Economy
INR 4032	Asia and Latin America in World Affairs
INR 4283	International Relations, Development, and Third World
INR 4521	Politics of Regional Integration
JPN 3140	Japanese for Business
LBS 4653	Labor Movements in Developing Countries
LBS 4654	Comp and International Labor Studies
MAN 4600	International Business
MAR 4156	International Marketing
SSI 3240	World Prospect and Issues
SYD 3650	Sociology of Gender and Power in Asia
SYO 4550	Comparative Sociology
SYP 4454	Globalization and Society

Visit our website at http://asian.fiu.edu for a comprehensive list of electives.

Asian Cultural Studies Concentration Electives:

AMH 4544	The United States and the Vietnam War
AMH 4xxx	US Foreign Relations
AML 4xxx	American Writers and the Orient
ARC 4754	Asian and African Architecture
ARC 4xxx	Cities of Asia
ARH 4552	Art of China and Japan
ASH 3440	History of Japan
ASH 4300	East Asian Civilization and Culture
ASH 4364	History of Women in Asia
ASH 4404	History of Modern China
ASN 4510	Dynamics of Asia
COM 3410	Cultural Communication-Patterns of Asia
DAN 2761	The Art of Yoga and Meditation
DAN 4136	Global Perspectives in Dance and Culture I
DAN 4137	Global Perspectives in Dance and Culture II
EDF 4xxx	Arts and Education in China

EDF 3xxx	Education in Japan
EVR 3402	Asian Environmental Issues
JPN 3500	Japanese Culture and Society
LIN 4624	Bilingualism and Language Policy
MUH 3052	Music of the World
MUH 3570	Survey of Asian Music
PEM 4401	Comp Analysis of Japanese Martial Arts
PET 3148	Intro to Martial Arts
PHH 3810	Philosophy of Buddhism
PHH 3840	Indian Philosophy
PHI 3762	Eastern Philo and Religious Thought
PHP 3840	Chinese and Japanese Philosophy
REL 3027	Meditation and Mystical Traditions
REL 3028	Sacred Places, Sacred Travels
REL 3123	Asian Religions in the Americas
REL 3145	Women and Religion
REL 3302	World Religions
REL 3313	Sources of Modern Asian Society
REL 3314	Religions of the Silk Road
REL 3330	Religions of India
REL 4311	Religious Classics of Asia
REL 4312	Jews of Asia
REL 4340	Pathways to Buddha
REL 4345	Zen Buddhism
REL 4351	Religion and Japanese Culture
SPW 4133	Eastern Thought and L.A. Literature: Octavio Paz
SPW 4470	Asia in 19th Century Hispanic Literature

Visit our website at http://asian.fiu.edu for a comprehensive list of electives.

Bachelor of Arts in Asian Studies with Honors

The Honors track is designed for promising students who possess a strong desire for intellectual challenge and growth that focuses on their interest in Asia. The Honors track provides students with a more depth foundation in the traditional cultures and modern socio-economic societies of Asia; and further prepares them for advanced studies as well as for careers in the public and private sectors.

Requirements

a. To earn a B.A. with honors in Asian Studies, a student must maintain a 3.5 GPA in Asian Studies courses.
b. Candidates for the B.A. with honors in Asian Studies will complete the same requirements as the B.A. major with one exception. In addition to the 18 semester hours on the concentration of choice (i.e. international political economy of Asia or Asian cultural studies), students will take 3 additional semester hours of "Independent Research in Asian Studies" (ASN 4911), during which the thesis or honors paper will be proposed, researched, written and defended orally.
c. In the semester prior to graduation, the student will enroll in "Independent Research in Asian Studies" (ASN 4911) in which he or she will expand a term paper into an honors paper/thesis or will begin a thesis anew under the direction of an appropriate member of the Asian Studies or affiliated faculty.
d. When the thesis is approved by the faculty member, the coordinator of ASN 4911 will organize and schedule a defense of the honors paper/thesis, at which he or she will present the research and will respond to questions from faculty and students. This requirement will be deemed to have been met upon a majority positive vote of faculty.
e. The honors paper/thesis normally would be approximately 25-30 pages, must be presented according to FIU regulations (available in the department office), and will be deposited in the FIU library. The honors paper/thesis must demonstrate that the student has mastered skills in defining a topic, research and expository writing, as well as oral skills required for presentation and defense of the honors paper/thesis.

Minor in Asian Studies

This program is designed with an interdisciplinary approach to Asian Studies. This minor offers a specialized focus on area and comparative studies. It prepares students interested in careers in international business, state or federal government, foreign affairs, and education, and more.

Required Course (3 credits)

Students must choose one from the following list of core courses in comparative area studies or global studies.

ASN 4510	Dynamics of Asia
ECS 3303	Comparative Economic Systems
GEA 2000	World Regional Geography
INR 4283	International Relations of the Developing and Third World
REL 3302	Studies in World Religions
SYO 4550	Comparative Sociology
WOH 2001	World Civilizations

Electives (12 credits)

Students must select 12 elective credits from the list of courses approved for the Asian Studies B.A. degree (see above). Students are encouraged to take language courses, participate in the study abroad programs, and internships. A maximum of 6 credits will be awarded towards the minor for language courses.

For more information, contact the Institute for Asian Studies, DM 300B. Email: asian@fiu.edu; phone: (305) 348-1914; website: http://asian.fiu.edu.

Course Descriptions

Definition of Prefixes
ASN – Asian Studies
SAL – Sanskrit

ASN 2002 Introduction to Asian Societies (3). Overview of Asian societies, including their interaction and impact on modern times.

ASN 3015 South Asian Cultures (3). An overview of South Asian culture.

ASN 3042 Asian Religions and the Arts (3). Examines the richly diverse and complex forms of art and artistic expression in the various Asian religions against the background of their respective cultural settings.

ASN 3329 Women is Asian Society (3). A multidisciplinary examination of the roles of and attitudes towards women in contemporary Asia. Analysis of how modernization and globalization affect women's status.

ASN 3403 Zen and the Art of Tea Ceremony (3). An introduction to the cultural traditions and social behavior of Asia that covers the history, theory, and practice of Chado, or Way of Tea, a Zen-Buddhist inspired art.

ASN 3410 Introduction to East Asia (3). An overview of East Asia from traditional to modern times including the interaction among Asian cultures as well as between Asia and the world.

ASN 3414 Cultures of East Asia (3). A survey of the major cultural expressions of the societies of traditional and modern China and Japan.

ASN 3931 Special Topics in Asian Studies (3). An examination of specific topics in Asian Studies. The content is to be determined by the instructor.

ASN 4111 Japan and the New East (3). Issues of nationalism, regionalism and globalism in light of the emerging role of Japan in relation to the ascendancy of China and the implications for East Asia.

ASN 4404 Zen and the Art of the Tea Ceremony II (3). Theory, practice, aesthetics and cultural history of Chado, the Tea Ceremony of Zen Buddhism.

ASN 4510 Dynamics of Asia (3). An interdisciplinary study of the classical and contemporary periods in Asian civilizations, including tradition and modernization, culture and the arts, gender and diversity, and international relations. May be repeated with a change of content.

ASN 4810 Readings in Classical East Asian Texts (3). Reading and interpretation of classical sources from literature and religion in East Asia.

ASN 4911 Independent Research in Asian Studies (1-6). Topics selected to meet academic needs for students doing research in same special area in Asian Studies. Prerequisite: Permission of the instructor.

ASN 4941 Internship in Asian Studies (1-3). Students to intern in local, national, and overseas organizations with ties to Asia. The nature of the work to be determined in conjunction with the advisor. Prerequisite: Permission of the instructor.

ASN 5120 Religion and Society in Japan (3). Examines the relation between religion and the state, the growth of new religious movements, the role of religion during times of war and conflict, issues of religious freedom and legality, the impact of religious institutions on gender and ethnicity.

ASN 5130 Zen and the Arts (3). Examines the history, theory, and practice of Chado (Way of Tea), a Zen-inspired art that has had, and still exerts, a long-lasting influence on Japanese society.

ASN 5131 Zen and the Arts II (3). Theory, practice, aesthetics and cultural history of Chado the Tea Ceremony of Zen Buddhism.

ASN 5171 International Relations of Contemporary China (3). Survey of the dynamic interaction between external and internal factors on China's international relations.

ASN 5306 Applying Asian Cultural Values in Business (3). Critical survey of traditional Asian values. Topics to include the way they have been applied to the world of entrepreneurship, cultural constructions of the Asian business community and philosophical approaches to the formation of entrepreneurial strategies.

ASN 5315 Survey of Modern Asia (3). Focus on modernization, or the transition from pre-modern (classical and medieval) to elements of the modern, including westernization, industrialization, and the roles of capitalism, communism, imperialism, and colonialism, as well as the impact of post-colonialism and post-modern society in Asia.

ASN 5605 Silk Road: Then and Now (3). Examination of the historical and contemporary significance of the Silk Road as an avenue for commercial and cultural exchange between East and West.

ASN 5815 Studies of Classical East Asian Texts (3). Advanced studies of classical East Asian readings from literature and religion, including interpretation and analysis from traditional and contemporary perspectives. Proficiency in Japanese and/or Chinese required. Prerequisite: Permission of the instructor.

ASN 5910 Independent Research in Asian Studies (1-6). Topics will be selected to meet academic needs for students doing research in some specialized area of asian studies. Prerequisite: Permission of the instructor.

ASN 5932 Special Topics in Asian Studies (3). An examination of specific topics in Asian Studies. The content to be determined by instructor.

FLE 4853 Chinese Studies Pedagogy (3). Introduction to Chinese language pedadogy, providing knowledge and tools for teaching Chinese language and culture in a classroom, in a variety of pedagogical settings. Prerequisite: Permission of the instructor.

SRK 2100 Sanskrit I – Basic Sanskrit (3). Basic Sanskrit skills including Devanagiri alphabet; fundamentals of oral communication; grammar; use of dictionary; history of Sanskrit languages and literature.

SRK 2101 Sanskrit II – Parinian Sanskrit (3). Basic elementary Sanskrit alphabet and phonetics, grammar and syntax, formation and understanding of simple sentences common Sanskrit terms used in Hindu literature relationship to other languages. Prerequisite: SRK 2100.

SRK 3232 Sanskrit III – Epic Sanskrit (3). Reading and literary analysis of representative Sanskrit epic literature. The Bhagavad Gita will be the focus of attention. Prerequisite: SRK 2101.

SRK 3233 Sanskrit IV – Sanskrit Composition (3). Advanced aspects of poetic structures and literary styles of Sanskrit literature. Foci will be the Panchatantra and the works of Kalidasa. Prerequisite: SRK 3232.

Biological Sciences

Laurie L. Richardson, *Professor and Chairperson*
Samuel C. Allen, *Research Scientist*
M. Alejandro Barbieri, *Assistant Professor*
Bradley C. Bennett, *Associate Professor*
Charles Bigger, *Professor*
Richard P. Brinn, *Instructor*
Christopher Brown, *Professor*
Richard J. Campbell, *Research Scientist*
Chun-fan Chen, *Associate Professor*
Laurel S. Collins, *Associate Professor*
Timothy M. Collins, *Associate Professor*
Leon A. Cuervo, *Professor Emeritus and Biology Career Advisor*
Maureen A. Donnelly, *Professor and Graduate Program Director*
Jack B. Fisher, *Research Scientist*
James W. Fourqurean, *Professor*
Javier Francisco-Ortega, *Associate Professor*
Evelyn E. Gaiser, *Associate Professor*
Miroslav Gantar, *Research Scientist*
Robert M. George, *Instructor*
Nicole Gerard, *Research Scientist*
Walter M. Goldberg, *Professor*
Ferdinand Gomez, *Visiting Instructor*
Michael Heithaus, *Assistant Professor*
Rene J. Herrera, *Professor*
Frank J. Jochem, *Assistant Professor*
Leung Kim, *Assistant Professor*
Suzanne Koptur, *Professor*
Lidia Kos, *Associate Professor*
David N. Kuhn, *Associate Professor*
Todd C. LaJeunesse, *Assistant Professor*
Craig A. Layman, *Assistant Professor*
David W. Lee, *Professor*
Carl E. Lewis, *Research Scientist*
John C. Makemson, *Professor and Director of Undergraduate Studies*
Joyce Maschinski, *Research Scientist*
Kalai Mathee, *Associate Professor*
Michael Maunder, *Research Scientist*
DeEtta K. Mills, *Lecturer*
Fernando G. Noriega, *Associate Professor*
Steven F. Oberbauer, *Professor*
Tom Philippi, *Assistant Professor*
Polly Phillips, *Instructor*
Thomas R. Pitzer, *Instructor and Laboratory Coordinator*
Thomas E. Pliske, *Instructor*
Lauren Raz, *Research Scientist*
Jennifer H. Richards, *Professor*
Barbra A. Roller, *Instructor*
Gene Rosenberg, *Faculty Administrator and Associate Chairperson*
Lisa M. Schneper, *Visiting Lecturer*
Sylvia L. Smith, *Professor*
Philip K. Stoddard, *Professor*
Martin L. Tracey, *Professor*
Joel C. Trexler, *Professor and Marine Biology Program Director*
Maureen Walter, *Instructor*
Douglas Wartzok, *Professor and Vice President for Academic Affairs*
Ophelia I. Weeks, *Associate Professor*
Scott Zona, *Research Scientist*

Bachelor of Science in Biological Sciences

Degree Program Hours: 120

Courses Required for the Degree

Lower Division Program

Common Prerequisites

A grade of "C" or better required.

BSC 1010	**General Biology I**
BSC 1010L	**General Biology I Lab**
BSC 1011	**General Biology II**
BSC 1011L	**General Biology II Lab**
CHM 1045	**General Chemistry I**
CHM 1045L	**General Chemistry I Lab**
CHM 1046	**General Chemistry II**
CHM 1046L	**General Chemistry II Lab**
CHM 2210	**Organic Chemistry I**[1]
CHM 2210L	**Organic Chemistry I Lab**[1]
CHM 2211	**Organic Chemistry II**[1]
CHM 2211L	**Organic Chemistry II Lab**[1]
PHY 2048	**Physics with Calculus I**[1,2]
PHY 2048L	**General Physics Lab I**[1,2]
PHY 2049	**Physics with Calculus II**[1,2]
PHY 2049L	**General Physics Lab II**[1,2]
MAC 2311	**Calculus I**[3]

MAC 2312	**Calculus II**[3]
	OR
STA 2122	**Intro to Statistics I**[3]
STA 3123	**Intro to Statistics II**[3]

[1]Organic chemistry sequence or physics sequence must be taken at the Lower Division.
[2]Physics without Calculus I and II and corresponding labs can be substituted (PHY 2053, and PHY 2054).
[3]Calculus I and Calculus II must be taken in the Lower Division. If Statistics I is taken, it must be taken in the Lower Division. Calculus I and Statistics I alone are not sufficient to meet the requirements for the degree. STA 3111 and STA 3112 may be substituted for STA 2122 and STA 3123.

To qualify for admission to the department, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable to the department.

Upper Division Program

Required Courses

1. PCB 3043	Ecology	3
2. PCB 3063	Genetics	3
3. PCB 4023	Cell Biology	3
4. PCB 4674	Evolution	3
5. BSC 4931	Senior Seminar	1
6. Distribution Requirement		12

One additional lecture course in each of the following areas:

A. Ecology
B. Organismal Diversity
C. Physiology/Biochemistry
D. Structure/Development

(If a course satisfies the distribution requirement, the letter of the area that it satisfies is in brackets after the course description).

7. Biology Electives[1] 2 lecture courses 6
8. Laboratory Requirement[2] (Labs) 4
9. Electives outside major 9
10. A minimum of 48 credits must be earned in Upper Division courses.

[1]Two upper division lecture courses (3000-level and above) to be chosen in consultation with a faculty advisor. The following courses are not allowed as Biology Electives: Student Research Labs (BSC 3915, 4914, and 6916); Workshop Biology Labs (BSC 5928, PCB 5238, BSC 6926, etc.); Cooperative Education credits (BSC 3949); Physiology of Aging (PCB 3241); and courses for non-science majors (BOT 1010, PCB 2061, PCB 2099, MCB 2000, BSC 2023, EVR 3013, and OCB 2003).

[2]Laboratory requirement is met with any four upper division Biology labs offered with the required courses, courses that meet the distribution or Biology elective requirements.

Students interested in teacher certification should contact the College of Education at (305) 348-2768.

Special Programs

Bachelor of Science in Marine Biology

Admission to the Program

Students wishing to pursue the BS in Marine Biology must meet the same entry requirements as identified for admission to the BS in Biological Sciences.

Marine Biology Program activities and upper-division coursework will be concentrated at the Biscayne Bay Campus, although course requirements may be met elsewhere at FIU.

Continuity in academic advisement is an objective in this specialized degree program. Each student enrolling in the BS Marine Biology Program must select or will be assigned a faculty mentor. Biological Sciences faculty are eligible to serve as mentors in the Marine Biology Program.

Courses Required for the Degree

Lower Division Program

The lower Division component of the Marine Biology Bachelor of Science is identical to that of the BS in Biological Sciences, in which common prerequisites in Biological Sciences, Chemistry, Physics, Calculus, and Statistics must be met. All requirements for completion of the lower division in Biological Sciences apply to the BS in Marine Biology, including the grade of "C" or better in required courses, the lower division physics, calculus, and statistics requirements, options, and acceptable substitutions.

Upper Division Program

The upper-division requirements for the BS in Marine Biology include a selection of five common requirements and a choice of four marine electives, including selections from among the physical sciences. The Biological Sciences Distribution Requirement does not apply to the BS in Marine Biology.

Common Requirements

PCB 3043	Ecology	3
PCB 3063	Genetics	3
PCB 4023	Cell Biology	3
OCB 3043	Marine Biology and Oceanography	3
BSC 4931	Senior Seminar	1

Upper-Division Electives

Students are required to choose four from among the following 10 upper-division Marine electives:

PCB 4674	Evolution	3
ZOO 5456	Ichthyology	3
OCB 3264	Coral Reef Biology	3
BOT 5647	Ecology of Marine Vascular Plants	3
PCB 4724	Comparative Physiology	3
PCB 4805	Endocrinology	3
OCB 4632	Marine Microbial Ecology	3
BOT 4404	Phycology	3
OCE 3014	Oceanography	3
GLY 4730	Marine Geology	3

Laboratory Requirement

The student is required to take a minimum of 4 laboratories of upper division required or elective courses.

Bachelor of Science with Honors in Biology

Admission to the Program

a. Permission of the department. Application should be made by letter to the Curriculum Committee from the applicant after completion of two semesters at the University and prior to two semesters before graduation. The letter should state the intended research problem and be countersigned by the Thesis Committee (advisor and mentor).

b. A minimum GPA of 3.5 in biology, chemistry, physics, geology, and mathematics courses.

Graduation Requirements

a. A minimum GPA of 3.5 in biology, chemistry, physics, geology, and mathematics courses.

b. Completion of the BS requirements in Biology and Honors Research Lab (BSC 4915L, 1 to 3 credits, and Honors Thesis (BSC 4970, 3 credits).

c. Completion of Honors research in collaboration with a two-person Honors Committee, consisting of the honors advisor and one other member. The honors advisor must be a tenured or tenure-earning member of the department. The research results must be written in the form of an honors thesis and approved by the Honors Committee.

d. Deposit two completed approved copies of the Honors Thesis with the Department's Office: one copy to be kept in the department and the other to be deposited in the Library.

e. Presentation of the results of the Honors Research in a departmental seminar.

Bachelor of Science in Biological Sciences Biomedical and Premedical Honors Track

Admission to the Program

a. Admission to the program will be limited to students who have a reasonable expectation of admission to medical school based on their performance in key lower division courses listed below.

b. Students will receive orientation and group advisement through the College of Arts and Sciences Pre-Health Professions Advising Center and should avail themselves of the information posted on its website

http://www.fiu.edu/~preprofc. In addition, the Department has a Premedical/Pre-professional Advisement Committee composed of faculty who counsel individual students on a regular basis by appointment. The individual progress of students in the program will be tracked by the department's Undergraduate Advisement Center located in OE 246.

c. Students will receive provisional admission and advisement as soon as possible during their freshman year. They are encouraged to enroll in the Premedical Honors FIG which encompasses both General Chemistry and General Biology among other courses.

d. Students apply for admission to the Premedical Honors Program at the end of sophomore year as they apply for their major in Biological Sciences. This timetable also applies to transfer students.

e. Admission to this limited-enrollment Premedical Honors Program will be based on a GPA of 3.5 in the following prerequisite lower division courses: General Biology 1&2, General Chemistry 1&2, Organic Chemistry 1&2, Calculus 1&2 and Physics 1&2. In addition, the student must receive the sponsorship of a faculty member who will agree to supervise his/her research. Applications for admission are made in the form of a letter to the department's Biomedical and Premedical Honors Committee by the applicant. Students who lack all but one (or one semester) of the required course sequences may be given a provisional admission to the program at the discretion of the BMPM Honors Committee. Students entering as transfer students who present these lower division courses taken elsewhere with the required GPA may also be provisionally admitted.

f. The courses chosen to fulfill the requirements for the Biomedical and Premedical Honors Track will be the same as for the regular B.S. program except that (a) the mathematics requirement does not include Statistics as an option (although it is highly recommended), and (b) required courses taken outside the major must include at least one of the following: ANT 3462 Medical Anthropology, PHI 4633 Biomedical Ethics, REL 3180 Medical and Bioethics or SYO 3400 Medical Sociology.

g. As in the Honors Program in Biological Sciences, the Biomedical and Premedical Honors Track will require placement in a research lab and registration for BSC 4915L Honors Research Laboratory. Students must enroll in this course prior to the spring term of their 3rd year and are therefore encouraged to contact potential research mentors as early as possible. In addition, the production of an honors thesis supervised by a thesis committee, and registration for BSC 4970 Honors Thesis is also required. A list of faculty and their research interests is available from the Biology Department office in OE 167 or from http://www.fiu.edu/~biology.

h. Graduation requirements for the B.S. in Biological Sciences, Biomedical and Premedical Honors Track: GPA of 3.5 in all science and mathematics courses, satisfactory completion of an honors thesis and presentation of results in a departmental seminar.

Minor in Biology

Required Courses

BSC 1010 and BSC 1011 with labs, and one upper division course (3000-level or above) in three of the following areas: 1. Ecology, 2. Organismal Diversity, 3. Physiology/Biochemistry, or 4. Structure/Development. One of these elective courses must be at the 4000-level or higher and one must include a lab. Total upper division biology credits must number 10 or more. Grades of 'C' or better are required for all courses and labs. The following courses do not count as electives: Student Research Labs (BSC 3915, 4914, and 6916), Workshop Biology Labs (BSC 5928, PCB 5238, BSC 6926, etc.); Cooperative Education credits (BSC 3949), Physiology of Aging (PCB 3241), and any course for non-science majors (e.g., BOT 1010, PCB 2061, PCB 2099, MCB 2000, BSC 2023, EVR 3013, and OCB 2003).

Minor in Marine Biology

Required Courses

Students must complete, with a grade of "C" or better, BSC 1010 and BSC 1011 with labs, OCB 3043 Marine Biology and Oceanography and OCB 3043L, and at least three courses (lecture along with the accompanying lab, when available) from among the selection of Upper Division Electives listed as meeting the BS in Marine Biology requirement.

Pre-Medical, Dental, Optometry, and Veterinary Curricula

Students who have fulfilled the requirements for the BS in Biology will also have satisfied the course requirements for admission to the above mentioned professional schools. Some professional schools may have additional course requirements. Interested students should consult the Pre-Medical Advisor for arranging a curriculum to enhance their potential to gain admission.

Accelerated Combined Degree Programs

Seven-Year Programs for BS/DO, BS/DPM and BS/DMD

1. BS in Biology/DO (Bachelor of Science in Biology-FIU/Doctor of Osteopathy-College of Osteopathic Medicine, Nova Southeastern University).

2. BS in Biology/DPM (Bachelor of Science in Biology-FIU/Doctor of Podiatric Medicine-School of Podiatric Medicine, Barry University).

3. BS in Biology/DMD (Bachelor of Science in Biology-FIU/Doctor of Dental Medicine-College of Dentistry, University of Florida).

The Department of Biological Sciences at Florida International University and the College of Osteopathic Medicine, Nova Southeastern University, the School of Podiatric Medicine, Barry University and the College of Dentistry, University of Florida offer combined degree programs designed to integrate the undergraduate and the medical curricula in seven years instead of the traditional eight years, while maintaining the quality of both the undergraduate and the medical education. The accepted qualified students are admitted to the FIU Biology Program and receive provisional early acceptance to the medical program at the time they are entering FIU. These programs give the students the opportunity to concentrate on a comprehensive undergraduate liberal arts education around rigorous core and science curricula. During the first two years at FIU, students complete the general core courses and basic science requirements. The third academic year is spent in taking advanced courses to fulfill the requirements for the Bachelor of Science in Biology. After completing the third year curriculum at FIU, the students enter the medical program to receive the traditional four year medical education. Satisfactory

completion of the basic medical science courses at the medical school will permit the students to earn 30 credit hours toward the BS degree in Biology. For further information contact Dr. C. F. Chen at (305) 348-3509.

Course Descriptions

Note: Laboratories should be taken concurrently with or subsequent to lectures. Students should register for each separately.

Definition of Prefixes

APB - Applied Biology; BCH - Biochemistry; BOT - Botany; BSC - Biological Science; ENY - Entomology; MCB - Microbiology; OCB - Oceanography (Biological); PCB - Process Biology; ZOO - Zoology.

BCH 3033 General Biochemistry (3) BCH 3033L Biochemistry Lab (1). Chemistry of proteins, lipids, carbohydrates, and nucleic acids; principles of enzymology, metabolism, and bioenergetics. Prerequisites: Organic Chemistry CHM 2211 and General Biology I BSC 1010. [C]

BCH 4034 General Biochemistry II (3). Protein synthesis and structure, nucleic acid synthesis and structure, protein-protein and protein-nucleic acid interactions, membrane structure, signal transduction, and metabolic regulation. Prerequisite: General Biochemistry BCH 3033. [C]

BCH 5134C Workshop in Chromatography Techniques (1). Workshop covers the theory and practice of chromatographic techniques to separate complex mixtures of biomolecules, including absorption, ion exchange, size exclusion and affinity chromatography. Prerequisite: Graduate status.

BCH 5280 Bioenergetics (3). The relationship of thermodynamics to living processes; energy transduction, enzymes in coupled systems. Prerequisite: Permission of the instructor. [C]

BCH 5411C Techniques in Molecular Evolution Research (5). Ribosomal genes from related organisms are amplified by polymerase chain reaction (PCR) and sequenced. Phylogenetic maps are made by computer from sequence data. Students may use material from their own research. Prerequisites: General Biochemistry BCH 3033 and Lab BCH 3033L, Molecular Biology PCB 4524 and Lab PCB 4524L or graduate status.

BOT 1010 Introductory Botany (3). BOT 1010L Introductory Botany Lab (1). A history of mankind's study and use of plants, and a survey of plants of economic importance. Includes lab. No science prerequisite. (Lab fees assessed)

BOT 3014 Plant Life Histories (3). BOT 3014L Plant Life Histories Laboratory (1). Plant form, function, and reproduction: the lives of algae, fungi, bryophtes, ferns, gymnosprerms, and flowering plants. This course is designed for majors and certificate students. Prerequisites: A course in General Biology or permission of the instructor. Corequisite: Concurrent registration in lecture and lab courses. [B]

BOT 3153 Local Flora (2). BOT 3153L Local Flora Lab (2). Introduction to the taxonomy and ecology of common native, cultivated, and exotic plant species in southern Florida. Laboratory observation of the gross features of vascular plants and practice in the use of keys for identification. Basic ecology of principal plant communities of Southern Florida. Field trips. Prerequisites: Introductory Botany BOT 1010 or General Biology II BSC 1011. Corequisite: Concurrent registration in lecture and lab courses. [B]

BOT 3353 Morphology of Vascular Plants (3). BOT 3353L Morphology of Vascular Plants Lab (1). Origin and evolution of plants, especially vascular plants of tropical origin. Analysis of vascular plant anatomy and morphology, emphasizing the underlying principles of plant construction. Prerequisites: A course in General Biology or permission of the instructor. [D]

BOT 3434 Mycology (3) BOT 3434L Mycology Lab (1). An introduction to the taxonomy, genetics, and physiology of fungi with special emphasis on commercially important fungi and plant and animal pathogenic fungi. Prerequisites: General Biology I BSC 1010, General Biology II BSC 1011. [B]

BOT 3663 Tropical Botany (3) BOT 3663L Tropical Botany Lab (1). How environmental factors affect the distribution of vegetation, and the morphology and physiology of plants in the tropics. Emphasis on tropical plants of economic importance. Prerequisites: General Biology II BSC 1011 or equivalent. Corequisite: Concurrent registration in lecture and lab courses. [B]

BOT 3810 Economic Botany (3). The origins, domestication and uses of economically important plants. Prerequisites: General Biology II BSC 1011, Introductory Botany BOT 1010 or equivalent. [B]

BOT 4374 Plant Development (3). BOT 4374L Plant Development Lab (1). The development of vascular plants, with emphasis on experimental approaches to plant anatomy, morphology, and reproduction. Practical instruction in tissue and organ culture. Prerequisites: Plant Physiology BOT 4503 or permission of the instructor. [D]

BOT 4404 Phycology (3). BOT 4404L Phycology Lab (1). The biology of marine and freshwater algae, with an emphasis on structure, function, reproduction, classification, and ecology. [B]

BOT 4503 Plant Physiology (3) BOT 4503L Plant Physiology Lab (1). Plant growth and metabolism in relationship to environment. Photobiology, nutrient relations, transport, and hormones in relation to plant development and function. Prerequisite: Organic Chemistry I CHM 2210. [C]

BOT 4684 Taxonomy of Tropical Plants (3). BOT 4684L Taxonomy of Tropical Plants Lab (1). Introduction to higher plant taxonomy, including nomenclature, modern systems of angiosperm classification, and angiosperm evolution. Emphasis on identification of tropical plant families and plants of economic importance. Prerequisites: Local Flora BOT 3153 or Tropical Botany BOT 3663 or permission of the instructor. [B]

BOT 5304C Workshop in Plant Morphology (2). Techniques to analyze plant form and experience with the diversity plant morphology; field work using the collections at Fairchild Tropical Gardens. Prerequisistes: 2 botany courses or permission of the instructor.

BOT 5406 Algal Physiology (3). Physiology and metabolism of eukaryotic algae, including ecological aspects of the aquatic environment and algal roles in aquatic biogeochemical cycling. Prerequisites: Phycology BOT 4404, General Chemistry I CHM 1045 and General Chemistry II CHM 1046 or permission of the instructor. [C]

BOT 5515 Biochemistry of Plant Natural Products (3). Aspects of primary and secondary plant metabolism will be covered including biosynthesis and degradation of natural products as well as their biological/ pharmacological activity. Prerequisites: Organic Chemistry CHM 2211 or General Biochemistry BCH 3033. [C]

BOT 5575 Photobiology (3) BOT 5575L Photobiology Lab (1). The study of basic photochemical mechanisms as they occur in molecular biological processes such as photosynthesis, plant growth, animal vision, bioluminescence, and radiation damage. Prerequisite: Permission of the instructor. [C]

BOT 5602 The Functional Ecology of Tropical Plants (3). BOT 5602L The Functional Ecology of Tropical Plants Lab (1). The relationship of climate and soils to the distribution and function of the major plant groups of the tropical regions. Prerequisites: Two courses in botany or permission of the instructor. [A]

BOT 5605 Plant Ecology (3). BOT 5605L Plant Ecology Lab (1). In-depth study of plant ecology at 3 levels: individual, population, and community. Laboratory and field exercises will examine lecture topics. Prerequisites: Ecology PCB 3043 or permission of the instructor. Corequisite: Concurrent registration in lecture and lab courses. [A]

BOT 5615 Workshop: Seed Conservation (1). Covers practical issues of seed conservation of tropical plants: longevity curves, seed germination protocols and seed conservation procedures. Prerequisites: Graduate students or permission of instructor.

BOT 5647 Ecology of Marine Vascular Plants (3). Biology and ecology of seagrasses and mangroves, with an emphasis on South Florida and Caribbean species. Physiological ecology, population and community ecology, and ecosystem processes. Prerequisite: Permission of the instructor. [A]

BOT 5648 Workshop on Aquatic Plants (1). Biology and identification of aquatic plants. Prerequisites: Graduate status or permission of the instructor.

BOT 5682 Florida Plant Communities (3). Two-week field trip to many diverse plant communities of the state. Ecological and environmental factors influencing plant distribution will be examined, contrasting vegetation among sites. Prerequisites: General Biology II BSC 1011 and Ecology PCB 3043 or permission of the instructor. [A]

BOT 5704 Botanical Terminology, Latin and Nomenclature (2). Course is divided into 3 parts: 1) Botanical Latin and its use; 2) Plant description terminology, and current descriptive standards; and 3) Botanical nomeclature, the ICBN, Phylocode, and others. Prerequisites: Plants Systematics (BOT 5725C) or Systematic Biology (BSC 5606), or approval of the Advisor.

BOT 5725C Plant Systematics (3). Theory and methods of classification of vascular plants using phylogenetic principles. Covers the integration of morphological and molecular characters. Prerequisites: Graduate students or permission of the instructor.

BOT 5727 Plant Genetics (3). Topics related to higher plants, including polyploid inheritance, self-incompatibility, cytoplasmic inheritance, mutable alleles, complex loci, genome analysis, recombination and mutagesis. Prerequisites: General Biology I and II (BSC 1010 and 1011) and Genetics (PCB3063).

BOT 5728 Plant Molecular Systematics (2). DNA markers for phylogenetic analysis of vascular plants, including description of laboratory methods, computerized analytical techniques and evolutionary interpretation. Prerequisites: Graduate status or permission of the instructor.

BOT 5728L Plant Molecular Systematics Laboratory (2). DNA markers for phylogenetic analysis of vascular plants, including description of laboratory methods, computerized analytical techniques and evolutionary interpretation. Prerequisites: Graduate status or permission of the instructor.

BOT 5816 Ethnobotany (3). Review the use and management of plants by indigenous people. Discuss emerging theories in ethnobotany, examine the role of ethnobotany in conservation and resource utilization. Prerequisites: Economic Botany BOT 3810, Tropical Botany BOT 3663, Cultural Ecology ANT 3403, or permission of the instructor.

BOT 5816L Ethnobotany Workshop (1). Field methods in the study of plant use by traditional and modern societies. Examines botanical documentation, ethnological description and experimental design. Prerequisites: Graduate status or permission of the instructor.

BOT 5817 Field Ethnobotany (1-4). A 4-week field course that introduces students to tropical vegetation and its use by traditional cultures. Topics include tropical botany, diversity, ecology, and the relationship between plants and people. Course may be repeated. Prerequisites: BOT 5816 and BOT 5816L or permission of the instructor.

BOT 5852 Medical Botany (3). An examination of medicinal plants including the biology, chemistry, and pharmacology of botanical remedies, and their effects on human health. Prerequisites: Economic Botany or BOT 5816 or permission of the instructor.

BOT 5924 Workshop in Tropical Plant Families (3). An introduction to important spermatophyte families, including systematics, ecology, and conservation. Prerequisite: Permission of the instructor. [B]

BOT 5925 Workshop in the Biology of Southern Florida's Native Trees (3). Distribution, floristic relationships, morphology, reproductive biology, taxonomy, and conservation of trees native to southern Florida. Prerequisites: Local Flora BOT 3153, Tropical Botany BOT 3663, or permission of the instructor. [B]

BOT 5928 Workshop on Grasses and Sedges of Southern Florida (1). The systematics, ecology, and identification of South Florida grasses and sedges.

Prerequisites: Graduate status or permission of the instructor.

BSC 1010 General Biology I (3) BSC 1010L General Biology I Lab (1). Biomolecules, cells, energy flow, genetics, and physiology. Science background or Biology major recommended. (Lab fees assessed)

BSC 1011 General Biology II (3) BSC 1011L General Biology Lab II (1). A survey of organismal biology with emphasis on botany and zoology. Science background or Biology major recommended. (Lab fees assessed)

BSC 2023 Human Biology (3) BSC 2023L Human Biology Lab (1). Biological and general scientific principles governing human structure, function, health, and relationship to the planetary environment. For non-science majors. (Lab fees assessed)

BSC 3364 Research in Tropical Ecosystems (3). Biology, Earth Sciences and Environmental Studies faculty describe research in marine and terrestrial ecosystems, geology, conservation and education. Students discuss scientific ideas. [A]

BSC 3428 Introduction to Brewing Science (3). BSC 3428L Introduction to Brewing Science Lab (1). A hands-on overview of the scientific principles and operation of craft breweries, commercial breweries, and microbrewery technology. Relevant chemical, biological and physical processes will be examined.

BSC 3915, 4914 Student Research Lab I and II (1-12). Independent laboratory study in a project or projects of the student's choice. Registration by consultation with instructor. May be repeated for additional credit.

BSC 3949 Cooperative Education in Biology (1-3). A student majoring in biological sciences may spend several terms employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Co-op Education and major department.

BSC 4303 Biogeography (3). Current issues concerning geographic distribution of plants and animals. Prerequisites: Ecology PCB 3043 and Evolution PCB 4674. [A]

BSC 4304 Environments of the Past (3). The biogeography, diversity and ecology of ancient life is combined with the study of sediments and stable isotopes to interpret environmental changes of the past at the local to global scale. Prerequisite: Permission of the instructor.

BSC 4361 Biodiversity of Tropical Islands (3). Current issues on evolution, diversification and conservation of flora and fauna on tropical islands. Prerequisites: Genetics PCB 3063, Ecology PCB 3043, and Evolution PCB 4674. [A]

BSC 4363 Biodiversity in the Caribbean Basin (3). Current issues on evolution, conservation, and diversification of biota of the Caribbean Basin. Prerequisites: BSC 1010, BSC 1011 General Biology I and II. [A]

BSC 4422 Biotechnology: Applications in Industry, Agriculture and Medicine (3). Biological, biochemical, ecological, engineering, entrepreneurial, and ethical aspects of biotechnology in industry, agriculture, and medicine. [D]

BSC 4915L Honors Research (1-3). Laboratory and/or field study in consultation with an Honors Thesis advisor. Prerequisite: Admission into Honors in Biological Sciences Program.

BSC 4931 Senior Seminar (1). An exploration of various research works in biological sciences. Oral presentation by the students required. Prerequisite: Senior standing.

BSC 4934 Topics in Biology (1-3). An intensive study of a particular topic or limited number of topics not otherwise offered in the curriculum.

BSC 4970 Honors Thesis (3). Writing an Honors Thesis. Prerequisite: BSC 4915L.

BSC 5302 Ecosystems of the Past (3). Analysis of local to global change in environments through time using faunal distributions, biodiversity, biogeography, physical and chemical properties of sediments, and stable isotopes. Prerequisite: Permission of the instructor. [A]

BSC 5405C Environmental Instrumentation (3). Theory and techniques for measurement of environmental parameters of interest to field biologist. Prerequisite: Permission of the instructor. [C]

BSC 5406 Forensic Biology (3). Forensic applications of molecular biology including PCR, STR techniques and other laboratory methods and data interpretation. Prerequisite: Graduate status. [D]

BSC 5926 Graduate Bioresource Workshop (1). This workshop is designed to introduce Biology graduate students to the various resources available for graduate teaching and research. Prerequisite: Graduate status.

BSC 5927 Workshop: Hyperspectral Remote Sensing in Biology (1). Basic understanding of principles, techniques and application of hyperspectral remote sensing of the Earth's natural environments. Prerequisites: Graduate Status or permission of the instructor.

BSC 5928 Workshop: Vertebrate Animal Research (1). Reviews the ethical, legal and practical guidelines for conducting research with live vertebrate animals. Required for students capturing, handling or collecting vertebrate animals in the course of research or teaching. Prerequisites: Graduate status or permission of the instructor.

BSC 5929 Workshop: Paleoecology of South Florida (2). Sampling, preparation, and identification of diatoms and foraminifera from a freshwater to marine transect, and application of ecology to interpreting past ecosystems. Prerequisite: Permission of the instructor.

BSC 5933 Current Topics in Tropical Biology (3). An intensive study of particular tropical biology topics not otherwise offered in the curriculum. Prerequisite: Permission of the instructor.

BSC 5936 Glaser Seminar: The Biology of Tomorrow (1). A series of lectures by an invited, internationally recognized authority in biological topics of current and future concern.

ENY 1004 General Entomology (3) ENY 1004L Entomology Lab (1). The morphology, systematics, physiology and ecology of the major insect orders, and

introduction to basic field procedures. Prerequisite: General Biology II BSC 1011.

ENY 4060 Entomology (3). ENY 4060L Entomology Laboratory (1). Explorations of the morphology, physiology, behavior and metabolism of insects in the context of their evolutionary, environmental and economic significance. Prerequisites: General Biology I BSC 1010, General Biology II BSC 1011, or permission of the instructor. [B]

MCB 2000 Introductory Microbiology (3) MCB 2000L Introductory Micro Lab (1). Basic concepts of microbes as pathogens, food spoilage and fermentative organisms. Microbial relationships to immunology, sanitation, pollution and geochemical cycling. Not applicable for majors in Biological Sciences. (Lab fees assessed)

MCB 3020 General Microbiology (3) MCB 3020L General Microbiology Lab (1). Introduction to the principles and techniques of microbiology, genetics, taxonomy, biochemistry and ecology of microorganisms. Prerequisites: Organic Chemistry I CHM 2210 and Organic Chemistry II CHM 2211; and General Biology I BSC 1010 and General Biology II BSC 1011; or permission of the instructor. [B]

MCB 4203 Microbial Pathogenicity (3) MCB 4203L Microbial Path Lab (1). Host-parasite relationships: physiology of bacterial, fungal and viral pathogens emphasizing mechanisms of pathogenicity and the host response. Prerequisite: General Microbiology MCB 3020. [C]

MCB 4404 Microbial Physiology (3) MCB 4404L Microbial Physiology Lab (1). Introduction to the study of physiological and metabolic activities of microorganisms and processes that affect them. Prerequisites: General Microbiology MCB 3020 and Lab MCB 3020L. [C]

MCB 4503 Virology (3) MCB 4503L Virology Lab (1). Principles and methods of study of bacterial, plant, and animal viruses. Molecular aspects of viral development, virus pathogens, and carcinogens. Prerequisites: General Biochemistry BCH 3033, Genetics PCB 3063, and Organic Chemistry I CHM 2210 and Organic Chemistry II CHM 2211. [C]

MCB 4603 Microbial Ecology (3) MCB 4603L Microbial Ecology Lab (1). Principles and applications of microbial interactions with the environment: physical, chemical, and biological. Prerequisites: General Microbiology MCB 3020 and Lab MCB 3020L. [A]

MCB 4653 Food Microbiology (3). MCB 4653L Food Microbiology Lab (1). Public Health microbiology of water and sewage, microbiology of food preparation and spoilage; industrial aspects of microbiology. Prerequisites: General Microbiology MCB 3020 and Lab MCB 3020L. [A]

MCB 5114 Microbial Diversity (3). MCB 5114L Microbial Diversity Laboratory (1). Analysis of metabolic and morpho-logical diversity in bacteria in the context of bacterial systematics. Prerequisites: General Microbiology MCB 3020 and Lab MCB 3020L; additional course in microbiology or biochemistry. Corequisite: Concurrent registration in lecture and lab courses. [B]

MCB 5315C Workshop: Prokaryotic Cloning (2). Description of molecular genetic methods for manipulation of prokaryotic DNA. Prerequisites: Genetics (PCB 3063) and Biochemistry (BCH 3033) or permission of the instructor.

MCB 5405 Biology of Photosynthetic Bacteria (3). MCB 5405L Biology of Photosynthetic Bacteria Lab (1). Study of the physiology and ecology of photosynthetic bacteria, including Blue-green algae (cyanobacteria), purple and green bacteria, and Halobacteria. [A]

MCB 5453L Workshop: Prokaryotic Cell Signaling (1). Covers chemical signals used by prokaryotes for cell-to-cell communications. Prerequisites: MCB 3020 or permission of the instructor.

MCB 5605 Microbial Ecology (3). Principles and applications of microbial interactions with the environment. Current research areas are emphasized. Prerequisite: Graduate Level Standing.

OCB 2003 Introductory Marine Biology (3) OCB 2003L Introductory Marine Biology Lab (1). A survey of marine biological environments and zones, including the relationship of the physical and chemical environment to the distribution of marine plants and animals. (Lab fees assessed)

OCB 3043 Marine Biology and Oceanography (3). OCB 3043L Marine Biology and Oceanography Laboratory (1). An ecological approach to the biology of organisms in the marine environment with an emphasis on zonation and adaptation to the physical environment. Intended for biology majors or other science majors. Prerequisites: General Biology I BSC 1010 and General Biology II BSC 1011. [A]

OCB 3264 Biology of Coral Reefs (3). Biology and ecological relationships of reef plants and animals with emphasis on their role in reef construction or bioerosion; reef constructional environments symbotic relationships and biogeography. Prerequisites: General Biology II BSC 1011 or Zoology. Ecology recommended. [A]

OCB 4303 Biology of Marine Mammals (3). A survey of marine mammals including evolution, systematics, morphology, physiology, behavior, population dynamics, ecology, conservation and theory relevant to these areas of biology. Prerequisites: BSC 1010 and 1011 and PCB 3043 or OCB 3043.

OCB 4632 Marine Microbial Ecology (3). Diversity, ecology and physiology of marine viruses, bacteria and protozoa, their role in marine food webs and the biogeochemical cycling of carbon and nutrients, and the significance of microbial food webs for marine productivity. Prerequisites: BSC 1010, BSC 1011, OCB 3043. [A]

OCB 5575L Workshop: Aquatic Flow Cytometry (1). A practical introduction to theories and applications of flow cytometry in the analyses of aquatic microorganisms (bacteria, phytoplankton) and their physiology. Prerequisite: Permission of the instructor.

OCB 5634 Marine Ecology (3). OCB 5634L Marine Ecology Lab (1). Review of processes determining species distribution and abundance in marine ecosystems. Energy flow and trophic relationships examined. Prerequisite: Ecology PCB 3043. Corequisite: Concurrent registration in lecture for lab courses.[A]

OCB 5670L Techniques in Biological Oceanography (1). A laboratory course designed to acquaint the student with biological sampling techniques at sea. Shipboard experience will be required as part of the course. Prerequisites: Previous course in marine biology and permission of the instructor.

PCB 2061 Introductory Genetics (3). PCB 2061L Introductory Genetics Lab (1). Principles of Mendelian and molecular genetics with selected examples of applications such as genetic engineering and twin studies.

PCB 2099 Foundations of Human Physiology (3) PCB 2099L Foundations of Human Physiology Lab (1). Functional survey of the organ systems of the human body. Intended primarily for non-science majors. (Lab fees assessed)

PCB 3043 Ecology (3) PCB 3043L Ecology Lab (1). The basic principles governing the interaction of organism and environment. Trophic structure and energetics, species diversity, evolution of populations, biogeochemical cycles. Prerequisites: General Biology I BSC 1010 and General Biology II BSC 1011. [A]

PCB 3063 Genetics (3) PCB 3063L Genetics Lab (1). Mendelian inheritance and introduction to molecular genetics. Prerequisites: General Biology I BSC 1010 and Organic Chemistry I CHM 2210. [D]

PCB 3203 Cell Physiology (3) PCB 3203L Cell Physiology Lab (1). Biochemical and biophysical principles of cell physiology: enzyme structure and function, energy transductions, electrical and chemical signals. Prerequisites: General Biology I and II with Labs BSC 1010, BSC 1010L, BSC 1011, BSC 1011L; General Chemistry I and II with Labs CHM 1045, CHM 1045L, CHM 1046, CHM 1046L; Physics I and II with or without Calculus and Labs, PHY 2048, PHY 2048L, PHY 2049, PHY 2049L (or PHY 2053, PHY 2054) and Organic Chemistry I and II with Labs CHM 2210, CHM 2210L, CHM 2211, CHM 2211L. [C]

PCB 3241 Physiology of Aging (3). Introductory treatment of the physiology of organ systems with emphasis on the decline in organ function with aging and on the resultant limitations in physiological performance.

PCB 3373 Tropical Ecology (3). In-depth survey of tropical climatology, ecological processes characteristic of tropical habitats, and biodiversity and conservation of tropical regions. Prerequisite: PCB 3043. [A]

PCB 3702 Intermediate Human Physiology (3) PCB 3702L Intermediate Human Physiology Lab (1). Functions of the human body and the physio-chemical mechanisms responsible for each organ's function. Prerequisites: General Biology I BSC 1010 or General Biology II BSC 1011. [C]

PCB 3703 Human Physiology I (3) PCB 3703L Human Physiology I Lab (1). Basic facts and concepts relating to the physiology of cells and nervous, muscular, and cardiovascular systems, with emphasis on regulatory mechanisms and abnormal physiology. Prerequisites: General Biology I and II with Labs BSC 1010, BSC 1010L, BSC 1011, BSC 1011L; General Chemsitry I and II with Labs CHM 1045, CHM 1045L, CHM 1046, CHM 1046L; and Physics I and II with or without Calculus and Labs, PHY 2048, PHY 2048L, PHY 2049, PHY 2049L (or PHY 2053, PHY 2054). [C]

PCB 3704 Human Physiology II (3) PCB 3704L Human Physiology II Lab (1). Physiology of respiratory, gastro-intestinal, excretory, endocrine and reproductive systems. Continuation of PCB 3703. Prerequisites: General Biology I and II with Labs BSC 1010, BSC 1010L, BSC 1011, BSC 1011L; General Chemsitry I and II with Labs CHM 1045, CHM 1045L, CHM 1046, CHM 1046L; and Physics I and II with or without Calculus and Labs, PHY 2048, PHY 2048L, PHY 2049, PHY 2049L (or PHY 2053, PHY 2054). [C]

PCB 3711 Physiological Mechanisms (3). Biophysical and biochemical perspective; Integrative aspects of physiology are de-emphasized to accomplish a detailed, but introductory coverage of mechanisms. [C]

PCB 4023 Cell Biology (3). A structural and molecular analysis of cell function. Prerequisite: Genetics PCB 3063. [C]

PCB 4023L Cell Biology Lab (1). Fundamentals of cell/histological identification and current techniques used to study cells. Prerequisite: PCB 3063.

PCB 4232 The Biology of Acquired Immune Deficiency Syndrome (AIDS) (3). An overview of Acquired Immune Deficiency Syndrome (AIDS) from biomedical and psychosocial perspectives. Prerequisites: General Biology I BSC 1010, General Biology II BSC 1011, General Chemistry I CHM 1045 and General Chemistry II CHM 1046. [A]

PCB 4233 Immunology (3) PCB 4233L Immunology Lab (1). Fundamentals of immunology including antibody structure, immunopathology, molecular recognition at cell surfaces and immunological aspects of cancer biology. Prerequisites: General Microbiology MCB 3020 or permission of the instructor. [C]

PCB 4253 Developmental Biology (3) Comprehensive survey of principles of development and critical analysis of methods used to study these problems. Prerequisites: Genetics PCB 3063 and Cell Physiology PCB 3203 or General Biochemistry BCH 3033. [D]

PCB 4301 Freshwater Ecology (3). PCB 4301L Freshwater Ecology Laboratory (2). Community-level analysis of marshes, lakes and rivers from theoretical and practical viewpoints, emphasizing quantitative description of community structure and function. Prerequisites: Ecology PCB 3043 or General Biology II BSC 1011 and permission of the instructor. [A]

PCB 4373 Amphibian Ecology (3). In-depth survey of the ecology of members of the vertebrate class Amphibia (caecilians, salamanders, amd frogs). Prerequisite: PCB 3043. [A]

PCB 4442 Community Ecology (3). Dynamic and descriptive community ecology: interactions among >2 species, patterns in species co-occurances across space and time. Terrestrial, acquatic, and marine examples and applications. Prerequisites: PCB 3043, MAC 2311. [A]

PCB 4514 Advanced Genetics (3). Advanced level treatment of topics such as meiotic disjunction-uniparental disomy, transcription & splicing - differential splicing,

polymorphisms, chromatin organization, horizontal gene transfer, etc. Prerequisite: Genetics PCB 3063. [C]

PCB 4524 Molecular Biology (3) PCB 4524L Molecular Biology Lab (1). Advanced nucleic acid and protein biochemistry: biosynthesis of macro-molecules and molecular genetics. Prerequisites: Biochemistry BCH 3033 or Genetics PCB 3063 and Organic Chemistry I CHM 2210. [C]

PCB 4673 Evolutionary Ecology (3). Adaptation and interaction of plants and animals in natural and disturbed habitats. Prerequisites: PCB 3043 and PCB 3063.

PCB 4674 Evolution (3). A study of the synthetic theory of evolution, its historic and experimental justification and the mechanisms of natural selection. Prerequisites: Genetics PCB 3063 and Ecology PCB 3043, or permission of the instructor. [B]

PCB 4723 Animal Physiology (3) PCB 4723L Animal Physiology Lab (1). Advanced study of physiological mechanisms employed by animals to maintain function of the organ systems and to interact with the environment. Prerequisites: Cell Physiology PCB 3203 or Biochemistry BCH 3033. [C]

PCB 4724 Comparative Physiology (3) PCB 4724L Comparative Physiology Lab I (1). Regulation of the internal environment: osmotic gastrointestinal, metabolic, circulatory and respiratory physiology. Prerequisites: General Biology I BSC 1010 and II BSC 1011 and Organic Chemistry I CHM 2210. [C]

PCB 4733 Human Systemic Physiology I (3) PCB 4733L Human Systemic Physiology Lab (1). Selected topics in human physiology with emphasis on topics of clinical significance. Prerequisites: Foundations of Human Physiology PCB 2099 or General Biology I BSC 1010 or General Chemistry I CHM 1045. [C]

PCB 4734 Human Systemic Physiology II (3). Selected topics in human physiology with emphasis on topics of clinical significance. Prerequisites: Foundations of Human Physiology PCB 2099 or General Biology I BSC 1010 or General Chemistry I CHM 1045. [C]

PCB 4805 Endocrinology (3). Biochemistry, physiology and anatomy of the endocrine systems of vertebrates and invertebrates. Steroid, peptide, and terpenoid hormones which control reproduction, growth, and other parameters. Prerequisites: General Biology II BSC 1011, Organic Chemistry II CHM 2211, and one physiology course. [C]

PCB 4805L Endocrinology Laboratory (1). A series of lab exercises and experiments designed to supplement lecture material in PCB 4805, and coordinated with that content. Prerequisites: General Biology I and II, permission of the instructor. Corequisite: PCB 4805.

PCB 5025L Molecular Biology Techniques Laboratory (3). Covers DNA and RNA extraction, digestion, electrophoresis, Southern analysis, RFLP analysis, PCR amplification, cloning and automated sequencing. Prerequisites: Graduate status or permission of the instructor.

PCB 5184 Workshop in Microtechnique (1). Laboratory techniques required for preparation of tissues for light microscopy-histological study. Prerequisites: Graduate status or permission of the instructor.

PCB 5195 Histochemistry/Microtechnique (3) PCB 5195L Histochemistry/Microtechnique Lab (1). Chemistry and use of fixatives and dyes; histochemistry emphasizes procedures used in research and pathology labs including techniques for enzymes, protein, carbohydrate, nucleic acids and lipids. Prerequisites: General Biochemistry BCH 3033 or Cell Physiology PCB 3203.

PCB 5215 Workshop in Histo- and Immunocyto-Chemistry (1). Laboratory techniques for preparation of paraffin-embedded and frozen sections; selected procedures to demonstrate the fundamentals of histochemical and immunocytochemical labeling methods. Prerequisites: Graduate status or permission of the instructor.

PCB 5235 Current Topics in Comparative Immunology (1). A weekly seminar/discussion course consisting of research presentations by students, faculty and visiting scientists in the area of comparative immunology. It is recommended for students with a research interest in the comparative study of mamalian and nonmamalian species or using alternative animal models. Prerequisite: Permission of the instructor.

PCB 5236 Immune Assessment (3). A review of the genetics and biochemistry of immune dysfunction with a focus on the methods used to evaluate adaptive and innate immunological function. Prerequisites: PCB 4233 or permission of the instrcutor.

PCB 5238 Marine Comparative Immunology Workshop (1). A workshop at the Keys Marine Lab to present general and unique research methodologies associated with the immunology of marine animals. Prerequisite: Permission of the instructor.

PCB 5239 Immunophysiology (3). Physiological and endocrine regulation of the vertebrate immune system. Prerequisite: Immunology PCB 4233.

PCB 5259 Topics in Developmental Biology (3). Molecular and cellular mechanisms in the development of plants and animals. Prerequisite: Permission of the instructor. [D]

PCB 5307 Limnology (3) PCB 5307L Limnology Lab (1). Chemical and physical properties of standing and flowing freshwater systems; ecophysiology and interactions of the fresh water flora and fauna in relation to abiotic factors; oligotrophic to eutrophic conditions. [A]

PCB 5327 Coastal Ecosystems and Modeling (3). Basics of ecology for coastal and wetland ecosystems. The theory and mechanisms of simulation modeling. Hands-on creation and application of computer models in ecological research. Prerequisites: Ecology PCB 3043 and Calculus I MAC 2311 or permission of the instructor. [A]

PCB 5328 Spatial and Landscape Ecology (3). Ecological processes with spatial components, including neighborhood interactions, foraging, metapopulations, infectious diseases, invasive species, and habitat associations. Prerequisites: PCB 5423 Advanced Ecology – Population and Community. Corequisites: PCB 5454

Advanced Ecology – Community Ecosystems; MAC 2311 Calculus.

PCB 5356L Tropical Ecology Field Lab (3). Field course in Costa Rica with fieldwork in two or more diverse habitats (rainforest, and dry forest). Emphasis on diversity and interactions between species. Visits to selected sites of deforestation, conservation and restoration. [A]

PCB 5358 Everglades Research and Resources Management (3). Application of basic skills in ecology to contemporary issues in the Everglades area, with emphasis on the relation between research and management of wilderness, wildlife, vegetation, water and fire. Prerequisites: Ecology PCB 3043 or permission of the instructor. [A]

PCB 5376 Animal Physiological Ecology (3). PCB 5376L Animal Physiological Ecology Laboratory (1). Evolution-oriented approach to physiological adaptations of animals living in diverse environments. Considers the inter-relationship between behavior, energetics, and integrative regulation of metabolism. Prerequisites: Ecology PCB 3043 and Biochemistry BCH 3033. [C]

PCB 5405 Biochemical Ecology (3). Principles of chemical communication between diverse organisms and the importance of a variety of allelo-chemicals in community structure. Prerequisite: Permission of the instructor.

PCB 5407 Workshop: Microelectrodes in Microbial Ecology (1). Use of microelectrodes to measure chemical micro-environments and biological processes in natural samples. Hands-on experience with O_2 and pH electrodes. Prerequisite: Permission of the instructor.

PCB 5423 Advanced Ecology: Populations and Communities (3). Advanced analysis of population and community ecology. Prerequisites: Ecology PCB 3043 or permission of the instructor or graduate status. [A]

PCB 5443 Advanced Ecology: Communities and Ecosystems (3). Advanced analysis of ecological principles pertaining to communities, ecosystems, and landscapes, with special emphasis on the South Florida and Caribbean region. Prerequisites: Ecology PCB 3043 or permission of the instructor or graduate status. [A]

PCB 5596 Workshop: In Situ Hybridization (1). Analysis of gene expression by in situ hybridization techniques using whole mount and crysectioned tissues. Prerequisites: Graduate status or permission of the instructor.

PCB 5615 Molecular and Organismal Evolution (3). The evolutionary relationships among nucleotides and proteins as well as the processes which yield these relationships. The possible molecular events leading to speciation. Prerequisites: Genetics PCB 3063 and Biochemistry BCH 3033.

PCB 5616 Applied Phylogenetics (3). Methods of phylogenetic analysis with focus on pragmatic applications to ecological and evolutionary studies. Hands-on experience with current computer programs for phylogenetic analysis. Prerequisites: Graduate status or permission of the instructor. [B]

PCB 5665 Human Genetics (3). Principles and techniques in the analysis of the human race. Prerequisite: Genetics PCB 3063. [B]

PCB 5677 Evolution and Development (3). The models and evidence for the interaction of development and evolution, using both plant and animal systems. Prerequisite: Permission of the instructor.

PCB 5685 Population Genetics (3). Advanced analysis of gene and genotype frequencies in theoretical populations and analysis of real data. Linkage equilibrium, drift, migration and selection are a few of the topics covered. Prerequisite: Genetics (PCB 3063). [A]

PCB 5686 Population Biology (3). PCB 5686L Population Biology Lab (1). Intrinsic properties of natural and theoretical populations and their dynamics and interactions, and responses to disturbance. Includes field problems and computer exercises. Prerequisites: Genetics PCB 3063 and Evolution PCB 4674, or permission of the instructor. [A]

PCB 5687 Evolutionary Ecology (3). PCB 5687L Evolutionary Ecology Lab (1). Adaptations and interactions of plants and animals in natural and disturbed habitats. Prerequisite: Ecology PCB 3043. [A]

PCB 5725 Membrane Signal Transduction (3). Hormones and neurotransmitters as extracellular messengers. Membrane receptors and mechanisms of signal transduction: membrane channels and enzymes, direct linkage and G-protein linkage. Second messengers. Prerequisites: General Biochemistry BCH 3033 or Cell Physiology PCB 3203. [C]

PCB 5786 Membrane Physiology (3). Chemical and physical properties of the plasma membrane, its biosynthesis and functions in transport and signal transduction. Prerequisites: Physics I PHY 2048, Physics II PHY 2049 and General Biochemistry BCH 3033 or Cell Physiology PCB 3203. [C]

PCB 5835 Neurophysiology (3) PCB 5835L Neurophysiology Lab (1). Comparative neurophysiology; physico-chemical mechanisms of resting and action potentials; synaptic transmission; neural coding and integration; sensory-motor function and neuro-physiological basis of behavior. Prerequisites: Biochemistry BCH 3033 or Cell Physiology PCB 3203 and Calculus I MAC 2311. [C]

PCB 5902 Readings in Stable Isotope Studies (1). Discussion of scientific papers published in the fields of isotope ecology and isotope biogeochemistry. Prerequisites: Graduate status or permission of the instructor.

PCB 5934 Topics in Skeletal Muscle Physiology (4). Advanced discussion of some aspects of the biophysics, biochemistry and physiology of skeletal muscle contraction. Topics may vary from year to year. Based on review articles and research papers. Prerequisites: Human Physiology I PCB 3703 and Cell Physiology PCB 3203 or General Biochemistry BCH 3033. [C]

PCB 5938 Ecosystem Studies Seminar (3). Theory and practice of ecosystem analysis, based on discussion of current articles and books. Emphasis on using different approaches to understand natural complexity, with case

studies researched by students. Prerequisites: Ecology PCB 3043 or permission of the instructor. [A]

ZOO 2713C Comparative Vertebrate Anatomy (4). Study of the structural diversity and classification of vertebrates and the evolution of various organ systems. Dissection of a variety of vertebrate specimens to reveal relationships of the various organ systems. Prerequisites: General Biology I BSC 1010 and General Biology II BSC 1011. [D]

ZOO 3021 Comparative Zoology (3) ZOO 3021 Comparative Zoology Lab (1). Characteristics, evolutionary relationships and physiological adaptations of metazoan animal groups from porifera through the chordates. Prerequisites: General Biology I BSC 1010 and II BSC 1011 with Labs BSC 1010L and BSC 1011L. [B]

ZOO 3203C Invertebrate Zoology (4). Taxonomy, anatomy, development, physiology and ecology of major invertebrate groups, including terrestrial and aquatic phyla. Prerequisite: General Biology II BSC 1011. [B]

ZOO 3303 Vertebrate Zoology (3) ZOO 3303L Vertebrate Zoology Lab (1). Systematics, anatomy, physiology, development and ecology of vertebrate animals. Prerequisites: General Biology I BSC 1010 and II BSC 1011 with Labs BSC 1010L and BSC 1011L. [B]

ZOO 3327 Human Evolutionary Morphology (3). The major evolutionary adaptations that have led to the unique biocultural characteristics of the human species. Prerequisites: ZOO 3731 or permission of the instructor. [D]

ZOO 3378C Forensic Osteology (4). A detailed examination of the human skeleton revealing such individual traits as sex, age, height, and race in order to assist law enforcement investigation in forensic identifications. Prerequisite: None, though a course in anatomy is strongly recommended. [D]

ZOO 3603 Embryology (3) ZOO 3603L Embryology Lab (1). Animal morphogenesis. Laboratory must be taken with lecture. Prerequisites: General Biology I BSC 1010 and II BSC 1011 with Labs BSC 1010L and BSC 1011L. [D]

ZOO 3731 Human Anatomy (3) ZOO 3731L Human Anatomy Demonstration (1). Survey of organ systems of the human body with major emphasis on the skeletal, muscular, and peripheral nervous system. Guided examination of prosected human cadavers. Prerequisites: General Chemistry I CHM 1045, General Physics I PHY 2053 or PHY 2048 and General Biology II BSC 1011. [D]

ZOO 3753 Histology (3) ZOO 3753L Histology Lab (1). Microscopic anatomy of cells, tissues and organs. Prerequisites: General Biology I BSC 1010 and Organic Chemistry I CHM 2210 and Organic Chemisty II CHM 2211. [D]

ZOO 3892C Biology of Captive Wildlife (3). Behavior, nutrition, physiology, anatomy, pathology and diseases of captive wildlife. Taught at Metrozoo. Prerequisites: General Biology II BSC 1011 or permission of the instructor. [B]

ZOO 4114 Principles of Paleobiology (3). Concepts and methods of paleobiology. Covers the nature of fossils, adaptation, systematics, evolutionary trends through time, global origination and extinction, paleoecology and paleobiogeography. Prerequisite: BSC 1011.

ZOO 4234 General Parasitology (3) ZOO 4234L General Parasitology Lab (1). Modern concepts of biology, development, immunology and pathology of animal parasites. Prerequisite: General Biology I BSC 1010. Corequisite: Concurrent registration of lecture and lab course. [B]

ZOO 4377C Functional Vertebrate Morphology (4). The study of the diversity of anatomical structure in vertebrates and the relationship between form and function. Prerequisites: General Biology I BSC 1010 with lab BSC 1010L, General Biology II BSC 1011 with lab BSC 1011L, or permission of the instructor. [D]

ZOO 4462C Herpetology (4). Study of the biology of reptiles and amphibians with emphasis on the natural history and ecology of local species. Prerequisites: General Biology I BSC 1010 and II BSC 1011 and Ecology PCB 3043 or permission of the instructor. [B]

ZOO 4472 Ornithology (3) ZOO 4472L Ornithology Lab (2). Avian systematics, anatomy, physiology, behavior, ecology, evolution, and conservation. Labs teach visual and auditory identification, census techniques, banding, and taping. Field trips alternate Saturdays and at least one overnight weekend field trip. Prerequisites: General Biology I BSC 1010 and II BSC 1011. Corequisite: Concurrent registration of lecture with lab course. [B]

ZOO 4484 Primate Biology (3) ZOO 4484L Primate Biology Field Lab (1). Survey of the natural history of the prosimians, monkeys, and apes with special emphasis on primate anatomy, evolution, ecology, and behavior. Prerequisties: General Biology I BSC 1010 and II BSC 1011 or permission of the instructor. [B]

ZOO 4513 Animal Behavior (3) ZOO 4513L Animal Behavior Laboratory (1). Evolutionary approach to understanding the diversity of behavioral strategies. Ecological and physiological mechanisms of behavior will be emphasized. Prerequisites: General Biology I BSC 1010 and II BSC 1011. Lab: Three weekend day trips and one overnight weekend field trip. Corequisite: concurrent registration of lecture with lab course. [A]

ZOO 4733 Survey of Regional Anatomy (3) ZOO 4733L Survey of Regional Anatomy Lab (2). The regional anatomy of the human body as revealed by dissections, radiographs, models and videos. Prerequisites: General Biology II BSC 1011 with lab BSC 1011L, General Chemistry II CHM 1046 with lab CHM 1046L, and Physics II PHY 2054. (Lab fees assessed) [D]

ZOO 4743C Neuroscience (4). Structure and function of the human nervous system. Dissection and demonstration of human nervous system and various neurophysiology labs. Prerequisites: One course in physiology and one course in human anatomy. [D]

ZOO 5265 Biology of Crustaceans (3). ZOO 5265L Biology of Crustaceans Laboratory (1). Morphology, physiology, systematics and evolution in crustaceans. [B]

ZOO 5371 Clinical Anatomy of the Trunk and Limbs (3). ZOO 5371L Clinical Anatomy of the Trunk and Limbs Lab (1). A detailed analysis of the anatomical foundations of kinesology and physical rehabilitation.

Special emphasis will be placed on the functional anatomy of the trunk, pectoral and pelvic limbs with clinical correlations to the major disorders commonly treated by physical and occupational therapists. Prerequisite: ZOO 3731. Corequisite: Clinical Anatomy of the Trunk and Limbs Lab. [D]

ZOO 5376 Animal Design and Movement (4). Basic biomechanical and behavioral theories of how animals feed and move. Prerequisites: General Biology I BSC 1010, and II BSC 1011, Physics I PHY 2053 and II PHY 2054. [D]

ZOO 5424 Herpetology (3) ZOO 5424L Herpetology Laboratory (1). Biology of amphibians and reptiles from a systematic perspective. The three orders of living amphibians and the six living orders of reptiles are covered in detail. Prerequisites: General Biology I BSC 1010 and II BSC 1011 and Ecology PCB 3043, or permission of the instructor. [B]

ZOO 5456 Ichthyology (3) ZOO 5456L Ichthyology Lab (1). Systematics, structure, function, ecology, and evolution of fishes. Prerequisites: General Biology I BSC 1010, and II BSC 1011, and Ecology PCB 3043. Corequisite: Concurrent registration of lecture and lab course. [B]

ZOO 5479 Workshop in Field Ornithology: Mark and Recapture Methods (1). Instruction in techniques of banding wild birds, including their capture with mist nets, identificaton in the hand, and maintenance of federally required records. Prerequisites: Ornithology with Lab ZOO 4472 and ZOO 4472L or permission of the instructor.

ZOO 5732 Advanced Anatomy Demonstration (1-4). Dissection and demonstration of the human body with the emphasis on structure and function. May be repeated to a maximum of 8 credits. Prerequisites: ZOO 4733 with Lab ZOO 4733L or permission of the instructor. [D]

ZOO 5745 Advanced Neuroanatomy (3). In-depth knowledge of the embryonic development, structure, and function of the human nervous system with a great deal of clinical consideration. Prerequisites: Neuroscience ZOO 4743C or permission of the instructor. [D]

ZOO 5746 Comparative Neurobiology (4). Structure and function of neural systems at many levels including biophysical and cellular mechanisms, molecular processes, neural circuits, development, and anatomy. Prerequisites: General Biology I BSC 1010 and II BSC 1011, General Chemistry I CHM 1045 and II CHM 1046 and Physics PHY 2048; graduate standing or permission of the instructor. [C]

Chemistry and Biochemistry

Stanislaw F. Wnuk, *Associate Professor and Chairperson*
Jose R. Almirall, *Associate Professor*
David A. Becker, *Associate Professor*
John Berry, *Assistant Professor*
Yong Cai, *Associate Professor and Graduate Program Director*
David Chatfield, *Associate Professor*
Milagros Delgado, *Lecturer and Coordinator of Laboratories at BBC*
R. Bruce Dunlap, *Professor*
Kenneth G. Furton, *Professor and Associate Dean*
Piero R. Gardinali, *Associate Professor*
Palmer Graves, *Associate Chair, Lecturer and Coordinator of General Chemistry Laboratories*
Arthur W. Herriott, *Professor*
Rudolf Jaffe, *Professor*
Jeffrey A. Joens, *Professor and Undergraduate Program Director*
Konstantinos Kavallieratos, *Associate Professor*
Leonard S. Keller, *Professor and Coordinator of Organic Chemistry Laboratories*
John T. Landrum, *Professor and Associate Dean*
Watson J. Lees, *Associate Professor*
Fenfei Leng, *Assistant Professor*
Ramon Lopez de la Vega, *Associate Professor*
Bruce R. McCord, *Associate Professor and Forensic Science Graduate Program Director*
Alexander M. Mebel, *Assistant Professor*
Zaida C. Morales-Martinez, *Professor Emeritus*
Kevin E. O'Shea, *Professor*
J. Martin E. Quirke, *Professor*
Kathleen S. Rein, *Associate Professor*
Alberto J. Sabucedo, *Lecturer and Forensic Certificate Director*
Uma Swamy, *Lecturer and Coordinator of General Chemistry Laboratories*
Xiaotang Wang, *Associate Professor*
Stephen Winkle, *Associate Professor*

Bachelor of Science

Degree Program Hours: 120

The B.S. in Chemistry program is approved by the American Chemical Society and prepares the student for graduate study or a professional career as a chemist in industry, in government service, or in secondary school teaching. (Students interested in secondary teacher certification should contact the College of Education at (305) 348-2721.)

Lower Division Preparation

Common Prerequisites

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
CHM 2210	Organic Chemistry I*	4
CHM 2210L	Organic Chemistry I Lab*	1
CHM 2211	Organic Chemistry II*	3
CHM 2211L	Organic Chemistry II Lab*	1
PHY 2048	Physics with Calculus I*	4
PHY 2048L	Physics with Calculus I Lab*	1
PHY 2049	Physics with Calculus II*	4
PHY 2049L	Physics with Calculus II Lab*	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4

*Either the General Physics sequence or the Organic Chemistry Sequence must be taken at the lower division. Whichever is not taken must be taken before the degree is granted.

To qualify for acceptance into the upper division, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable to the program.

Upper Division Program: (60 total hours, 48 hours must be 3000 level and above)

The following courses are required:

CHM 3120	Intro to Analytical Chemistry	3
CHM 3120L	Intro to Analytical Chemistry Lab	1
CHM 3410	Physical Chemistry I	4
CHM 3410L	Physical Chemistry I Lab	1
CHM 3411	Physical Chemistry II	4
CHM 3411L	Physical Chemistry II Lab	2
CHM 4130	Instrumental Analysis	3
CHM 4130L	Instrumental Analysis Lab	1
CHM 4220	Advanced Organic Chemistry	3
CHM 4304	Biological Chemistry I	3
CHM 4230L	Structure Determination Laboratory	1
	or	
CHM 4304L	Biological Chemistry I Lab	1
CHM 4610	Advanced Inorganic Chemistry	3
CHM 4610L	Advanced Inorganic Chemistry Laboratory	1
CHM 4910L	Undergraduate Research in Chemistry	3
CHM 4930	Senior Seminar	1

One additional senior-level (4000) Chemistry course *

At least three additional credits to be chosen from the following list:

MAP 2302	Differential Equations	3
CGS 2423	C for Engineers	3
MAC 2313	Multivariable Calculus	4

Students are required to take a nationally-normed chemistry examination in their last semester before graduation. Exam is given the second Friday in November and the second Friday in March.

*CHM 4911L may not be used to satisfy this requirement.

Bachelor of Science in Chemistry with Honors

Admission to the Program

To be a candidate for the honors in chemistry degree a student must first:

1. Be admitted to the BS in Chemistry program with a lower division GPA of at least 3.5 in science and math courses, and an overall GPA of at least 3.2,
2. Have completed at least twelve semester hours of chemistry courses,
3. Have arranged to be sponsored by a tenured or tenure-earning faculty researcher, and
4. Submit a letter to the Chemistry Undergraduate Committee requesting permission to pursue the honors track course of study.

Note: Any exceptions to these admissions criteria must be approved by the Undergraduate Program Director.

Graduation Requirements

1. Completion of all requirements for the BS in Chemistry with a minimum GPA of 3.5 in science and math courses and overall GPA of 3.2.
2. Completion of an honors research project in collaboration with a faculty advisor. The results of the research project must be written in the form of an honors thesis which is written in American Chemical Society-style publication format. The student must register for Undergraduate Research (CHM4910L) and receive a grade of "B" or better. The faculty advisor and the departmental Undergraduate Research Committee must judge the thesis as suitable in style and content for publication in an appropriate American Chemical Society journal.
3. Submission of two completed and approved copies of the Honors Thesis must be presented to the Chemistry Department office; one copy is to be kept in the department, and the second copy is to be housed in the University library.
4. The results of the research project must be presented orally to an audience of peers and faculty members from all science department honors programs. The presentation will be graded by the Undergraduate Research Committee, and the student must receive a score of 4 or 5 on a 5-point scale for his/her presentation.

Accelerated Master of Science in Chemistry

Admission Requirements

- Current enrollment in the Bachelor of Science program in chemistry at FIU.
- Completed at least 60 credits of coursework (including UCC).
- Current GPA of 3.2 or higher.
- GRE general test score of 1000 (verbal and quantitative combined), with a minimum quantitative score of 550.
- Three letters of recommendation.
- Approval of the Chemistry Graduate Committee.

Completion Requirements

Completed Bachelor of Science degree in chemistry at FIU
Required:

- 9 credits (3 courses) selected from graduate chemistry core courses. Required courses must be completed with an average of "B" or higher, and only one course may receive a grade less than "B-".
- Electives: 3 courses selected from the Chemistry Graduate Elective Offerings.
- 9 credits of Thesis Research and 2 credits of Thesis.
- 1 credit of Colloquium.
- Overlap: Up to 3 graduate level courses (9 credits) may be used to satisfy both the Bachelor's and Master's degree requirements.

Accelerated Master of Science in Forensic Science

Admission Requirements

- Current enrollment in the Bachelor of Science program in chemistry at FIU.
- Completed at least 60 credits of coursework (including UCC).
- Current GPA of 3.2 or higher.
- GRE general test score of 1000 (verbal and quantitative combined), with a minimum quantitative score of 550.
- Three letters of recommendation.
- Approval of the Chemistry Graduate Committee.

Completion Requirements

Completed Bachelor of Science degree in chemistry at FIU

- **Coursework**
  - **Required Courses:**
    - BSC 5406 Forensic Biology
    - CHS 5542 Forensic Chemistry
    - CHS 5531 Forensic Analysis
    - Required courses must be completed with an average of "B" or higher, and only one course may receive a grade of less than "B-".
- Electives: 5 courses selected from the Forensic Science Graduate Elective Offerings.
- 6 credits of Thesis Research and 1 credit of Thesis.
- 1 credit of Colloquium.
- Overlap: Up to 3 graduate level courses (9 credits) may be used to satisfy both the Bachelor's and Master's degree requirements.

Bachelor of Arts

Degree Program Hours: 120

This program is designed for students preparing for careers in medicine, pharmacy, dentistry, environmental studies, veterinary medicine, patent law, forensic science, secondary science education*.

The BA in Chemistry program is organized into four alternative areas of concentration. Students may choose to follow the "Standard BA in Chemistry Concentration" or – in consultation with an advisor – choose a specific area of emphasis: the Biochemistry Concentration, the Environmental Chemistry Concentration, or the Forensic Chemistry Concentration. Each of the four options is described below.

*(Students interested in secondary teacher certification should contact the College of Education at (305) 348-2721.)

Lower Division Preparation for All Areas of Concentration

Common Prerequisites

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry I Lab	1
CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry II Lab*	1
PHY 2048	Physics with Calculus I**	4
PHY 2048L	Physics with Calculus I Lab	1
PHY 2049	Physics with Calculus II**	4
PHY 2049L	Physics with Calculus II Lab	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4

*Either the General Physics sequence or the Organic Chemistry sequence must be taken at the lower division. Whichever is not taken must be taken before the degree is granted.

**For the Bachelor of Arts degree, PHY 2053 and PHY 2054 may be substituted for PHY 2048 and PHY 2049.

Other Lower Division Courses Required for the Degree:

BSC 1010	General Biology I	3
BSC 1010L	General Biology I Lab	1

To qualify for acceptance into the upper division, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable to the program.

Upper Division Program: (60 total hours, 48 hours must be 3000 level and above)

Upper Division Courses Required for All Concentrations

CHM 3120	Intro to Analytical Chemistry	3
CHM 3120L	Intro to Analytical Chemistry Lab	1
CHM 3400	Fundamentals of Physical Chemistry	3
CHM 3400L	Fundamentals of Physical Chemistry Lab	1
CHM 4304	Biological Chemistry I	3
CHM 4304L	Biological Chemistry I Lab	1
CHM 4930	Senior Seminar	1

Students are required to take a nationally-normed chemistry examination in their last semester before graduation. Exam is given the second Friday in November and the second Friday in March.

Specific Courses by Concentration

Standard BA-Chemistry Concentration

1. Choose from List 1 (Cognate Area Courses): Any one course*
   *Premed students should choose BSC1011/1011L
2. Choose from List 2 (Restricted Elective): Any two courses, one of which must include its corresponding lab.
3. One senior level chemistry elective: (CHM4XXX/CHM5XXX)**

**CHM4910L or CHM4911L may not be used to satisfy this requirement.

Biochemistry Concentration

This concentration is intended for students who desire a comprehensive background in chemistry but with emphasis in biological chemistry. The curriculum is designed to contain all of the courses necessary for entry into medical and dental school.

1. Choose from List 1 (Cognate Area Courses): BSC1011/BSC1011L
2. Choose from List 2 (Restricted Electives): CHM4300 & CHM4230L or CHM4307 & CHM4307L and one other lecture course
3. One senior level chemistry elective (CHM4XXX/CHM5XXX))** which is biomedically related.

**CHM4910L or CHM4911L may not be used satisfy this requirement.

Environmental Chemistry Concentration

This concentration is intended for students who desire a comprehensive background in chemistry but with an interest in applying their expertise in chemistry to environmentally-related careers and issues.

1. Choose from List 1 (Cognate Area Courses): An environmentally-related course
2. Choose from List 2 (Restricted Electives): CHM4130/4130L and one other lecture course
3. One senior level chemistry elective (CHM4XXX/CHM5XXX)** which is environmentally-related

**CHM4910L or CHM4911L may not be used to satisfy this requirement.

NOTE: Earn a Certificate in Environmental Studies (offered by the Department of Environmental Studies), by taking the appropriate environmental studies courses. This also satisfies the College's requirement of 9 credits outside the major.

Forensic Chemistry Concentration

This concentration is intended for students who desire a comprehensive background in chemistry but with an interest in applying their expertise in chemistry to a career in forensic science or criminalistics.

1. Choose from List 1 (Cognate Area Courses): CCJ3024
2. Choose from List 2 (Restricted Electives): CHM4130/4130L and one other lecture course
3. One senior level chemistry elective (CHM4XXX/CHM5XXX or CHS4XXX/CHS5XXX)** with forensic emphasis.

**CHM4910L or CHM4911L may not be used satisfy this requirement.

List 1 – Cognate Area Courses

BSC 1011	General Biology II	3
BSC 1011L	Gen Biology II Lab	1
CCJ 3024	Overview of Criminal Justice	3
EVR 3011	Environmental Resources	3
EVR 3013	Ecology of South Florida	3
EVR 3013L	Ecology of So Fl Lab	1
EVR 4211	Water Resources	3
EVR 4211L	Water Resources Lab	1
EVR 4231	Air Resources	3
EVR 4312	Energy Resources	3
EVR 4592	Soils & Ecosystems	3
EVR 4592L	Soils & Ecosystems Lab	1
GLY 3202	Earth Materials	3
GLY 3202L	Earth Materials Lab	2
GLY 4822	Intro to Hydrogeology	3
OCE 3014	Oceanography	3

List 2 – Restricted Electives

CHM 4220	Advanced Organic Chemistry	3
CHM 4300	Bio-organic Chemistry	3
CHM 4307	Biological Chemistry II	3
CHM 3610	Fundamentals of Inorganic Chemistry	3
CHM 3411*	Physical Chemistry II	4
CHM 4130	Instrumental Analysis	3
CHM 4230L	Structure Determination Lab	1
CHM 4130L	Instrumental Analysis Lab	1
CHM 4307L	Biological Chemistry II Lab	1
CHM 4610L	Advanced Inorganic Chemistry Lab	1
CHM 3411L	Physical Chemistry II Lab	2
EVR 4231	Air Resources	3

*CHM3410 is a prerequisite of CHM3411.

Minor in Chemistry

The minor in chemistry requires at least 21 credits in chemistry to include:

General Chemistry I & II (CHM 1045, 1045L, and 1046, 1046L)	8
Introduction to Analytical Chemistry (CHM 3120, 3120L)	4
Organic Chemistry I & II (CHM 2210, CHM 2210L, CHM 2211, CHM 2211L)	9

At least half of the credits to be counted towards the minor must be taken at the University.

Pre-Medical, Dentistry, Veterinary, Optometry Curricula

Students who have satisfied the requirements for either the BA or the BS degree in chemistry will also have satisfied the course requirements for admission to professional schools in the above areas. The BA in Chemistry degree (Biochemistry Concentration) includes additional course work relevant to the career objectives of the student. Interested students should consult the Pre-medical advisor at (305) 348-7289.

Cooperative Education

Students seeking the baccalaureate degree in chemistry may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters fully employed in an industrial or governmental chemistry laboratory. For further information consult the Department of Chemistry or the Department of Cooperative Education at (305) 348-2423.

Department Policy

The Department of Chemistry does not award credit for courses by examination; it does, however, award credit for AP Chemistry with a score of 3 or higher and with evidence of a suitable laboratory experience. The department does not award credit for life experience.

Course Descriptions

Note: Laboratories may not be taken prior to the corresponding course. Laboratories must be taken concurrently where noted. Students must register for the laboratory separately.

Definition of Prefixes

CHM-Chemistry; CHS-Chemistry-Specialized; ISC-Interdisciplinary Natural Sciences; OCC-Oceanography-Chemical.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

CHM 1025 Fundamentals of Chemistry (2). Introduces students to basic mathematics required in chemistry, nature of matter, atomic structure, simple chemical reactions and stoichiometry.

CHM 1032 Chemistry and Society (3) CHM 1032L Chemistry and Society Lab (1). A course for non-science majors which introduces students to basic concepts in chemistry and applies those concepts to contemporary issues such as air/water pollution, energy and food production, drugs, nutrition, and toxic chemicals. Prerequisites: One year of high school or college algebra. (Lab fees assessed) (F,S,SS)

CHM 1033 Survey of Chemistry (4). CHM 1033L Survey of Chemistry Lab (1) General and organic chemistry for non-science majors only. Atoms and molecules, states of matter, equilibrium, kinetics, acids and bases and introduction to organic chemistry. Laboratory must be taken concurrently. Does not fulfill requirements for chemistry, biology or pre-med majors. Prerequisites: One year of high school or college algebra. (Lab fees assessed) (S,SS)

CHM 1045 General Chemistry I (3) CHM 1045L General Chemistry Lab I (1). Fundamental principles of general chemistry: states of matter, atomic structure, stoichiometry, chemical bonding, acid-base reactions, and gas laws. Concurrent registration in both lecture and laboratory is required. Prerequisites: Second year high school algebra or college algebra. (Lab fees assessed) (F,S,SS)

CHM 1046 General Chemistry II (3) CHM 1046L General Chemistry Lab II (1). Continuation of General Chemistry I (CHM 1045). Fundamental principles of chemistry: thermodynamics, solutions, kinetics, equilibrium and electrochemistry. Concurrent registration in both lecture and laboratory is required. Prerequisites: CHM 1045 (with a "C" or better), CHM 1045L. (Lab fees assessed) (F,S,SS)

CHM 2200 Survey of Organic Chemistry (3) CHM 2200L Survey of Organic Chemistry Lab (1). A basic one-semester survey course in organic chemistry for non-majors presenting a broad background in the reactions and structures of organic molecules. Does not fulfill requirements for chemistry, biology, or pre-med majors. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1032, CHM 1032L, CHM 1033, CHM 1033L, or CHM 1046, CHM 1046L. (Lab fees assessed) (S)

CHM 2210 Organic Chemistry I (4) CHM 2210L Organic Chemistry Lab I (1). An introduction to chemical bonding and atomic structure theory as it pertains to the chemistry of carbon compounds. Correlation between structure and reactivity of organic molecules followed by a systematic look at the various reaction types using reaction mechanisms as a tool for study. Concurrent registration in both lecture and laboratory is required. Prerequisites: CHM 1046 (with a "C" or better), CHM 1046L. (Lab fees assessed) (F,S,SS)

CHM 2211 Organic Chemistry II (3) CHM 2211L Organic Chemistry Lab II (1). Continuation of CHM 2210, 2210L. Concurrent registration in lecture and laboratory is required. Prerequisites: CHM 2210 (with a "C" or better), 2210L. (Lab fees assessed) (F,S,SS) Lecture is co-requisite for lab.

CHM 3120 Introduction to Analytical Chemistry (3) CHM 3120L Introduction to Analytical Chemistry Lab (1). Fundamentals of classical quantitative analysis. Topics include theory of precipitation, acid-base and oxidation-reduction reactions, as well as an introduction to spectrophotometric methods of analysis, ion-exchange techniques and complex formation. Laboratory must be taken concurrently with the lecture Prerequisites: CHM 1046, (with a "C" or better) CHM 1046L. (F,S,SS)

CHM 3400 Fundamentals of Physical Chemistry (3). CHM 3400L Fundamentals of Physical Chemistry Lab (1). Principles of physical chemistry. Topics include thermodynamics, equilibria, electrochemistry, and reaction kinetics. Laboratory must be taken concurrently with the course. Prerequisites: MAC 2311, 2312; PHY 2048, 2048L PHY 2049, 2049L, or PHY 2053, 2048L, and 2054, 2049L, CHM 3120, 3120L. (S)

CHM 3410 Physical Chemistry I (4) CHM 3410L Physical Chemistry Lab I (1). Principles of thermodynamics, gas laws, kinetic theory of gases, chemical equilibrium, electrochemistry, and kinetics. Laboratory to be taken concurrently with the course. Prerequisites: MAC 2311, 2312; PHY 2048, 2048L PHY 2049, PHY 2049L, and CHM 3120, CHM 3120L. (F)

CHM 3411 Physical Chemistry II (4). CHM 3411L Physical Chemistry Lab II (2). Introduction to quantum mechanics. The Schrodinger equation and its application to rotational, vibrational, and electronic spectroscopy, atomic and molecular structure, and bonding. Prerequisites: CHM 3410, 3410L. (S)

CHM 3610 Fundamentals of Inorganic Chemistry (3). Fundamental principles of inorganic chemistry including atomic properties, valence and molecular orbital bonding, ionic solids, coordination chemistry and applications. Prerequisites: CHM 1046, CHM 1046L, CHM 2211, CHM 2211L.

CHM 3949, CHM 4949 Cooperative Education in Chemistry (1-3). One semester of fulltime supervised work in an outside laboratory. Limited to students admitted to the University Coop Program. A written report and supervisor evaluation will be required of each student. (F,S)

CHM 4090L Introduction to Scientific Glassblowing (1). Basic glassblowing operations with glass tubing and rod are taught. Emphasis is on making and repair of scientific glassware. No prerequisites.

CHM 4130 Instrumental Analysis (3) CHM 4130L Instrumental Analysis Lab (1). Instrumental methods of chemical analysis, including electro-analytical methods, gas and liquid chromatography, mass spectrometry, x-ray fluorescence, and spectrophotometric methods. Prerequisites: CHM 3120, 3120L, CHM 2211, 2211L, CHM 3410, PHY 2048, 2048L, PHY 2049, 2049L, or permission of the instructor. (F,S)

CHM 4220 Advanced Organic Chemistry (3). An intensive examination of the major areas of contemporary organic chemistry. Reactive intermediates, pericyclic reactions, molecular rearrangements, and modern synthetic methods are among the topics covered. Prerequisites: CHM 2211, 2211L. (F)

CHM 4230L Structure Determination Lab (1). The qualitative analysis of organic compounds using modern spectroscopic, chromatographic and chemical methods. Prerequisites: CHM 2211, and 2211L. (F,S,SS)

CHM 4300 Bio-Organic Chemistry (3). Chemistry of naturally-occurring organic compounds of biological importance. The relationship between organic chemistry and the chemical reactions which constitute the living organism. Prerequisites: CHM 2211, and 2211L. (S)

CHM 4304 Biological Chemistry I (3). CHM 4304L Biological Chemistry I Lab (1). Structures and functions of nucleic acids and proteins and cellular processes such as metabolism, replication and transcription are examined from a chemistry perspective. Prerequisites: CHM 2211, CHM 3120, BSC 1011 or permission of the instructor. Corequisite: A semester of physical chemistry. Lecture is corequisite for lab. (F,S,SS)

CHM 4307 Biological Chemistry II (3). Continuation of Biological Chemistry I (CHM 4304). Further exploration of bio-organic reaction mechanisms. Chemistry DNA synthesis and repair. Chemistry of information transfer. Reactions of drugs. Prerequisite: Biological Chemistry I (CHM 4304). (S)

CHM 4307L Biological Chemistry Lab II (1). Continuation of Biological Chemistry Laboratory I. Experimental methods presented include NMR, enzyme inhibition assays, macromolecular thermodynamics, peptide sequencing, ligand binding assays, chromatography. Prerequisites: CHM 4304, CHM 4304L. Corequisite: CHM 4307.

CHM 4320L Research Techniques in Organic Chemistry (2). Practical instruction in the more advanced manipulations and procedures of the modern chemistry laboratory. Restricted to B.S. chemistry majors. Prerequisites: CHM 3120, CHM 2211, CHM 2211L, CHM 3410, and CHM 3411L.

CHM 4321 Protein Chemistry (3). Structures of proteins and how they are determined. Protein-small molecule, protein-protein, protein-DNA, protein membrane interactions and their functions. Prerequisites: CHM 2211, BSC 1011, a biochemistry course or permission of the instructor. Corequisites: CHM 3410 or permission of the instructor.

CHM 4610 Advanced Inorganic Chemistry (3). Atomic structure, periodicity, bonding and structure of inorganic compounds, solution chemistry, ligand field theory, organometallic chemistry, and specific chemistry of the elements. Prerequisites: CHM 3120, CHM 2211, and CHM 3411. (F)

CHM 4610L Advanced Inorganic Chemistry Lab (1). Synthesis, purification, and study of coordination and organometallic compounds. Prerequisite: CHM 3411. Corequisite: CHM 4610. (F)

CHM 4910L Undergraduate Research in Chemistry (3). The student works directly with a professor on a research project. Credit is assigned based on 4 hr/wk laboratory/library work per credit hour. A written report is required. Report must be submitted to the Undergraduate Research Committee for approval. For additional credits of undergraduate research student must register for CHM 4911L. (F,S,SS)

CHM 4911L Undergraduate Research 2 (1-20). Faculty directed research in chemistry. Credit is assigned based on 4 hr/wk laboratory/library work per credit hour. May be repeated. Prerequisite: CHM 4910L. (F,S,SS)

CHM 4930 Senior Seminar (1). Each student will make an oral presentation to faculty and other students enrolled in the seminar course. The subject of the seminar may be either a report of results of an independent study project or a survey of the recent literature on an assigned topic. (F,S)

CHM 4931 Special Topics (3). Covers selected topics in chemistry. Prerequisite: Permission of the instructor.

CHM 4933 Special Topics (3). Covers selected topics in chemistry. Prerequisite: Permission of the instructor.

CHM 4934 Special Topics (3). Covers selected topics in chemistry. Permission of the instructor.

CHM 5138 Advanced Mass Spectrometry (3). Intensive examination of the processes and techniques involved in creating, controlling and measuring ionic species by mass spectrometry. Theory of mass spectrometry, methods of ionization, instrumental designs, quantitative mass spectrometry, meta-stable ions, and tandem mass spectrometry. Prerequisites: CHM 4130, CHM 4130L or permission of the instructor.

CHM 5139C Mass Spectrometry Workshop (2). Basic description of processes and techniques involved in creating, controlling and measuring elemental or molecular ionic species by mass spectrometry techniques. WS designed to provide hands on experience. Prerequisite: CHM 4130.

CHM 5150 Graduate Analytical Methods (3). Analysis of analytical data, electrochemistry, spectro-analytical techniques, chromatography, survey of new analytical methods. Prerequisites: Graduate standing or permission of the instructor. (S)

CHM 5156 Advanced Chromatography (3). Intensive examination of the contemporary practice of chromatography including available chromatographic techniques, their selection and application. Prerequisites: CHM 4130 or permission of the instructor.

CHM 5165 Chemometrics and Sampling (3). Methods of evaluating analytical chemistry data. Planning sampling design for water, air and solids. Sample preparation and extraction techniques. Prerequisite: CHM 4130.

CHM 5181 Special Topics in Analytical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisites: CHM 4130 or permission of the instructor.

CHM 5225 Graduate Organic Chemistry (3). Advanced topics in organic chemistry. Structure of organic molecules, reaction mechanisms, organic synthesis, and natural product chemistry. Prerequisites: Graduate standing or permission of the instructor. (F)

CHM 5236 Spectroscopic Techniques and Structures Elucidation (3). Advanced techniques for the spectroscopic identification of organic compounds. Interpretation of spectral information for determination of structures of various classes of organic compounds. Prerequisites: CHM 4220 and CHM 4230L.

CHM 5250 Organic Synthesis (3). Use of classical and modern reactions in the design and construction of complex organic molecules including natural products. Some topics covered will be construction reactions, refunctionalization, stereochemistry and conformational analysis. Prerequisites: CHM 4220 or permission of the instructor.

CHM 5251 Organometallic Chemistry (3). Fundamentals and applications of organometallic chemistry. Structures and bonding, ligand types, organometallic reactions, physical methods of characterization. Prerequisites: CHM 4610, CHM 3411.

CHM 5252 Asymmetric Synthesis (3). Recent advances in asymmetric synthesis for the selective design and construction of tetrahedral stereo-centers. Focus on principles of configuration in transition state assemblies. Prerequisite: CHM 4220.

CHM 5260 Physical Organic Chemistry (3). A series of topics will be discussed including molecular orbital theory as it pertains to organic molecules, kinetic and thermodynamic approaches to the study of reaction mechanisms, quantitative approaches to conformational analysis, etc. Prerequisites: CHM 4220 and physical chemistry or permission of the instructor.

CHM 5280 Natural Products Chemistry and Biosynthesis (3). Studies of the chemical origins (biosynthesis), properties, and synthesis of the various classes of naturally occurring compounds: terpenes, steroids, alkaloids, and acetogenins. Prerequisites: CHM 4220 or permission of the instructor.

CHM 5302 Organic Chemistry of Nucleic Acids (3). Organic chemistry of ribose sugars, nucleoside heterocyclic bases, mechanism-based inhibitors of enzymes involve in nucleic acid metabolism, and chemical synthesis of DNA. Prerequisites: CHM 4220 or permission of the instructor.

CHM 5305 Graduate Biological Chemistry (3). Structures of biological molecules; Biochemical reaction mechanisms; Enzyme kinetics; Biomolecular thermodynamics; Biomolecular spectroscopy. Prerequisites: Graduate standing or permission of instructor.

CHM 5306 Special Topics in Biological Chemistry (3). Investigation of one or more areas of biologically related chemistry. Prerequisites: CHM 4304 or permission of the instructor.

CHM 5325 Physical Chemistry of Proteins (3). Protein structures, dynamics and functions. Use of spectroscopic methods. Thermodynamics of protein folding and ligand binding. Enzyme Kinetics. Prerequisites: Biological Chemistry and Physical Chemistry or permission of the instructor.

CHM 5351 Computer Modeling of Biological Molecules (3). Introduces use of computers in studying biological macromolecules. Simulations, visualization methods, software, databases. Prerequisites: CHM 3411, Biochemistry recommended.

CHM 5380 Special Topics in Organic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisites: CHM 4220 and physical chemistry or permission of the instructor.

CHM 5423 Atmospheric Chemistry (3). Chemical processes in atmospheres. Photochemistry, chemical kinetics, tropospheric and stratospheric chemical reactions, anthropogenic effects on the earth's atmosphere and chemistry of planetary atmospheres. Prerequisites: CHM 3410, CHM 3411, or permission of the instructor.

CHM 5425 Graduate Physical Chemistry (4). Prequantum physics, the Schrodinger equation and its solutions, atoms and molecules, rotational, vibrational, and electronic spectroscopy. Prerequisites: Graduate standing or permission of the instructor.

CHM 5426 Graduate Physical Chemistry II (4). Gas laws; thermodynamics and equilibrium, electrochemistry, and chemical kinetics. Prerequisites: Graduate standing or permission of the instructor.

CHM 5440 Kinetics and Catalysis (3). Theory of elementary reactions, activated complex theory, mechanisms of complex reactions. Prerequisites: CHM 3411, MAP 2302.

CHM 5490 Physical Spectroscopy (3). Introduction to atomic and molecular quantum states, selection rules, and fundamental principles of spectroscopy. Introduction to group theory and to the theory of UV/visible, infrared, Raman, microwave, NMR, photoelectron, and mass spectroscopies, and the applications of these methods to the determination of fundamental physical properties and the structure of organic and inorganic molecules. Prerequisite: Physical Chemistry.

CHM 5490L Physical Spectroscopy Lab (1). The theory of spectroscopy and the use of modern instrumentation to investigate molecular structure. Prerequisites: CHM 2211, 2211L. Corequisites: PHY 4604 or CHM 5490.

CHM 5503 Physical Chemistry of Nucleic Acids (3). Physical chemistry of nucleic acids including spectroscopic determination of structures of DNAs, RNAs, and DNA-protein complexes and thermodynamic and kinetic studies of nucleic acid-ligand complexes and nucleic acid structures. Prerequisites: CHM 4304 or permission of the instructor.

CHM 5506 Physical Biochemistry (3). Physical properties of bio-molecules, molecular conformation; thermodynamic, kinetic, and spectroscopic properties of biomolecules. Prerequisites: CHM 4304 or permission of the instructor.

CHM 5517 Solid State (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, and dielectric materials. Prerequisites: CHM 5490 or PHY 4604.

CHM 5540 Group Theory In Chemistry (3). The fundamental theory is developed with emphasis given to representations. Specific applications covered, with emphasis on molecular orbital theory and spectroscopy. Prerequisite: CHM 3411.

CHM 5581 Special Topics in Physical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisites: CHM 3411 or permission of the instructor.

CHM 5586 Computational Chemistry (3). Surveys computational methods for studying issues pertinent to organic and biological chemistry. Emphasis on developing an understanding of principles and putting methods to use. Includes methods for studying reaction thermodynamics, reaction mechanisms and NMR spectral properties. Prerequisites: CHM 3410, CHM 3411.

CHM 5650 Physical Inorganic Chemistry (3). Introduction to use of physical methods to determine the structure of inorganic compounds. Prerequisite: CHM 4610 or permission of the instructor.

CHM 5681 Special Topics in Inorganic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisites: CHM 4610 or permission of the instructor.

CHM 5765 Aquatic Chemistry (3). Redox chemistry, chemistry of sediments, organic biogeochemistry, chemodynamics, and fates or organic pollutants in aqueous environments. Prerequisites: CHM 2211, CHM 4130, or permission of the instructor.

CHM 5931 Special Topics (3). A course covering selected special topics in chemistry.

CHM 5936 Special Topics in Environmental Chemistry (3). An intensive examination of one or more areas selected by the instructor and students. Prerequisite: Permission of the instructor.

CHS 3501 Survey of Forensic Science (3). A survey course introducing the principles and techniques of forensic science as they pertain to crime scene investigation and crime laboratory analysis.

CHS 3501L Survey of Forensic Science Laboratory (1). Laboratory course to accompany survey of forensic science lecture with emphasis on biological evidence. Topics include, CSI, DNA, toxicology, and serology. Corequisite: CHS 3501.

CHS 3510C Forensic Evidence (3). Introduces forensic science students to important aspects of the analysis of physical evidence including crime scene investigation techniques, professional practice and ethics, introduction to the law, and quality assurance. Prerequisites: CHM 1045, CHM 1045L, CHM 1046, CHM 1046L, CHM 2210, CHM 2210L, CHM 2211, CHM 2211L, CHM 3120, CHM 3120L, or permission of the instructor.

CHS 4100 Radiochemistry (2) CHS 4100L Radiochemical Techniques Lab (2). Production, isolation, methods of detection, counting statistics and estimation of radioisotopes. Applications to chemical, physical and biological problems. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1045, 1046, 3120, 3120L; MAC 3411, 3412.

CHS 4503C Forensic Science (3). Modern instrumental methods of chemical analysis and their use in the administration of justice. Prerequisites: CHM 3120 and CHM 2211 or permission of the instructor. Corequisites: a semester of physical chemistry or permission of the instructor.

CHS 4503L Forensic Science Lab (1). Laboratory to accompany Forensic Science, CHS 4503C. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L or permission of the instructor.

CHS 4533C Forensic Biochemistry Applications (3). Forensic applications of biochemistry including metabolite analysis, DNA analysis and other laboratory methods and data interpretation. Prerequisites: BSC 1010, CHM 2211, CHM 4304, or BCH 3033.

CHS 4591 Forensic Science Internship (3). Internship in a forensic-science laboratory, contributing in a specific manner on an assigned problem. Twenty hrs/wk. Written report required. Open only to students in the Criminalistics Chemistry Program. Prerequisite: Senior standing.

CHS 5502 Forensic Chemistry for Teachers (3). Incorporates concepts and techniques from the application of analytical chemistry, molecular biology, biochemistry, toxicology, and microscopy to forensic casework. Exposure to teaching resources in these areas and case study format of presentation. Open to education majors

only. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, and CHM 2211L or permission of the instructor.

CHS 5531 Forensic Analysis (3). An introduction to established chemical analysis techniques used in forensic science and new techniques under development. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L or permission of the instructor.

CHS 5531L Forensic Analysis Lab (1). Laboratory to accompany Forensic Analysis CHS 5531. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L or permission of the instructor.

CHS 5536 Forensic DNA Chemistry (3). Chemical basis for current methodologies of DNA analysis. DNA sequencing, PCR, STR, AFLP, mass spectrometry. Prerequisites: CHM 4304 or permission of the instructor.

CHS 5538C Chemistry and Analysis of Drugs (3). Introduction to the chemistry of drugs of abuse, including reactivity, synthesis and the principles of analysis from solid doses and from body fluids. Laboratory analysis through the determination of unknown samples. Prerequisites: CHM 4130, CHM 4130L, CHM 4304, CHM 4304L.

CHS 5539 Forensic Toxicology (3). Provides the basic concepts of forensic toxicology as it applies to drug and body fluid analysis. Prerequisites: CHM 2211+L, CHM 3120+L, CHM 4304+L (BCH 3033+L) or permission of the instructor.

CHS 5542 Forensic Chemistry (3). Advanced analytical methods in Forensic Chemistry for application to the analysis of controlled substances, materials (i.e., paint, glass, and fibers), flammable and explosives residues with an emphasis on new methods and method development.

CHS 5545 Chemistry and Analysis of Explosives (3). Chemistry and reactivity, including thermochemistry, of modern industrial and military explosives with an emphasis on the analysis of explosives residues from post-blast debris and from samples of environmental interest. Prerequisites: CHM 4130, CHM 4130L.

ISC 4041 Scientific Literature (1). This course presents a perspective on the scientific literature and scientific documentation. Problems in using and searching the scientific literature will be specifically designed to meet the needs of various disciplines, e.g. chemistry, environmental science, physics, biology. Prerequisites: 16 semester hours of science.

Earth Sciences

Bradford Clement, *Professor and Chairperson*
William Anderson, *Associate Professor*
Laurel Collins, *Associate Professor*
Grenville Draper, *Professor*
Michael Gross, *Associate Professor*
Stephen Haggerty, *Distinguished Research Professor*
Rosemary Hickey-Vargas, *Professor*
Jose Longoria, *Professor*
Andrew Macfarlane, *Associate Professor*
Florentin Maurrasse, *Professor*
René Price, *Assistant Professor*
Edward Robinson, *Research Associate*
Gautam Sen, *Professor*
Neptune Srimal, *Lecturer*
Michael Sukop, *Assistant Professor*
Dean Whitman, *Associate Professor*
Hugh Willoughby, *Distinguished Research Professor*
Ping Zhu, *Assistant Professor*

Knowledge of Earth Sciences is essential for understanding problems of climate, weather patterns, groundwater supply, environmental hazards, geotechnical engineering, and natural resources. Earth Scientists also are involved in basic research and teaching.

The Department of Earth Sciences has well-equipped laboratories that allow students to learn the basic techniques of the Earth Sciences. The undergraduate programs prepare students to become licensed Professional Geologists in the State of Florida.

The department offers a B.S. degree in Geosciences, with a choice of tracks in Geological or Atmospheric Sciences. In addition, the department offers a broader based interdisciplinary B.A. in Earth Sciences. Only grades of 'C' or better will be accepted for required courses in either program option. A minor in geology is also available.

Bachelor of Science in Geosciences

Degree Program Hours: 120

Lower Division Common Prerequisites

GLY 1010	Introduction to Earth Science	3
GLY 1010L	Introduction to Earth Science Lab	1
	or	
GLY 3039	Environmental Geology	3
GLY 3039L	Environmental Geology Lab	1
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
MAC 2311	Calculus I	3
MAC 2312	Calculus II	5
PHY 2048	Physics with Calculus I	4
PHY 2049	Physics with Calculus II	4
	or	
PHY 2053	Physics without Calculus I	4
PHY 2054	Physics Without Calculus II	4
PHY 2048L	General Physics Lab I	1
PHY 2049L	General Physics Lab II	1

Other Lower Divison Courses Required for the degree

For the Geological Sciences Track

BSC 1011	General Biology II	3
BSC 1011L	General Biology II Lab	1

For the Atmospheric Sciences Track

MAC 2313	Multivariable Calculus	4
MAP 2302	Differential Equations	3

Upper Division Geosciences Essentials

GLY 3202	Earth Materials	3
GLY 3202L	Earth Materials Lab	1
GLY 3100	Earth Through Time*	3
GLY 4822	Introduction to Hydrogeology	3
MET 3003	General Meteorology	3
OCE 3014	Oceanography	3
OCE 3014L	Oceanography Lab	1

[*Students may substitute Historical Geology from another institution.]

Geological Sciences Electives

This track is intended for students who wish to concentrate on the study of the solid Earth and hydrosphere. Prepares students for graduate work in geology or careers in management of resources and environment.

1. Choose three geology courses (with labs as necessary) from List 1 (12 credits)
2. Choose an additional 9 credits or more from either List 1 or List 2, at least three of which must be field experience.

List 1: Core Elective Courses

GLY 4300	Petrology	3
GLY 4300L	Petrology Lab	1
GLY 4511	Stratigraphy	3
GLY 4511L	Stratigraphy Lab	1
GLY 4400	Structural Geology	3
GLY 4400L	Structural Geology Lab	1

List 2: Secondary Elective Courses

GEO 3167	Applications of Geographic Information Systems	3
GLY 3034	Natural Disasters	3
GLY 3157	Elements of Caribbean Geology	3
GLY 3670C	Geological Map Analysis	3
GLY 3754	Remote Sensing in the Earth Sciences	3
GLY 3782	Geology Field Excursion	3
GLY 3881	Environmental Geology Field Methods	3
GLY 4450	Environmental and Exploration Geophysics	3
GLY 4730	Marine Geology	3
GLY 4791	Field Geology and Geologic Mapping	3
GLY 4812	Introduction to Ore Deposits	3
GLY 4910	Undergraduate Research in Geology	3
GLY 4970	Geology Honors Thesis	3
GLY 4989L	Geology Honors Research	1-3
GLY 4650L	Paleobiology Lab	1
GLY 4650	Paleobiology	3

Atmospheric Sciences Track

This track is for students who wish to concentrate on the study of the atmosphere. Prepares students for graduate work or careers in weather and climate prediction.

1. Choose four methodology courses (with labs as necessary) from List 1 (13 credits)

2. Choose an additional 9 credits or more from either List 1 or List 2.

List 1: Track-specific Courses

GLY 4300	Petrology	3
GLY 4300L	Petrology Lab	1
GLY 4511	Stratigraphy	3
GLY 4511L	Stratigraphy Lab	1
GLY 4400	Structural Geology	3
GLY 4400L	Structural Geology Lab	1
MET 3101	Physical Climatology	3
	or	
MET 4420	Physical Meteorology	3
MET 3502	Synoptic Meteorology	3
MET 3502L	Synoptic Meteorology Lab	1
MET 4301	Dynamic Meteorology I	3
MET 4302	Dynamic Meteorology II	3

List 2: Geo-elective Courses

GEO 3167	Applications of Geographic Information Systems	3
GLY 3034	Natural Disasters	3
GLY 3157	Elements of Caribbean Geology	3
GLY 3670C	Geological Map Analysis	3
GLY 3754	Remote Sensing in the Earth Sciences	3
GLY 3782	Geology Field Excursion	3
GLY 3881	Environmental Geology Field Methods	3
GLY 4450	Environmental and Exploration Geophysics	3
GLY 4730	Marine Geology	3
GLY 4791	Field Geology and Geologic Mapping	3
GLY 4812	Introduction to Ore Deposits	3
GLY 4910	Undergraduate Research in Geology	3
GLY 4970	Geology Honors Thesis	3
GLY 4989L	Geology Honors Research	1-3
GLY 4650L	Paleobiology Lab	1
GLY 4650	Paleobiology	3
MET 3300	Severe Weather	3
MET 4400	Instruments and Remote Sensing	3
MET 4532	Hurricanes	3

Bachelor of Arts in Earth Sciences

Degree Program Hours: 120

This program is for the student who requires a broad background in Earth Sciences for a career in science education or public or private administration dealing with Earth and environmental science issues.

Lower Division

CHM 1045	General Chemistry I
CHM 1045L	General Chemistry I Lab
CHM 1046	General Chemistry II
CHM 1046L	General Chemistry II Lab
GLY 1010	Introduction to Earth Science
GLY 1010L	Introduction to Earth Science Lab
MAC 2311	Calculus I
PHY 2053	Physics without Calculus I
PHY 2053	Physics without Calculus I Lab
PHY 2054	Physics without Calculus II
PHY 2054L	Physics without Calculus II Lab
	and
GLY 1100	Historical Geology
GLY 1100L	Historical Geology Lab
	or
GLY 1101	History of Life
GLY 1101L	History of Life Lab

Upper Division

GLY 3202	Earth Materials	3
GLY 3202L	Earth Materials Lab	1
OCE 3014	Oceanography	3
	and	

THREE *of the following:*

GLY 3760C	Geological Map Analysis	3
GLY 4822	Introduction to Hydrogeology	3
GLY 4511	Stratigraphy &	3
GLY 4511L	Stratigraphy Lab	1
GLY 4300	Petrology &	3
GLY 4300L	Petrology Lab	1
GLY 4400	Structural Geology &	3
GLY 4400L	Structural Geology Lab	1
	and	

ONE *of the following (3-4):*

EVR 3013	Ecology of South Florida &	3
EVR 3013L	Ecology of South Florida Lab	1
EVR 4211	Water Resources &	3
EVR 4211L	Water Resources Lab	1
EVR 4231	Air Resources	3
EVR 4310	Energy Resources	3
EVR 4952	Soils & Ecosystems &	3
EVR 4952L	Soils & Ecosystems Lab	1
GEO 3510	Earth Resources	3
GLY 3034	Natural Disasters	3

Additional Courses

Students take two approved 3000 or 4000 level courses in earth sciences/geology (excluding GLY 3039 Environmental Geology), other science departments, or the College of Engineering.

BS/BA Honors Track in Geosciences

The Honors program in Geology provides outstanding students with the opportunity to do original research under a faculty sponsor. To graduate with Honors, the student must carry out a research project, write up the project as an Honors Thesis, and present the results of the research in a Departmental seminar.

Admission to the Track

To be admitted to the track a student must:

- Have arranged to be sponsored by a faculty advisor.
- Have taken at least 14 hours of Geology courses with a GPA of at least 3.5; 6 hours must be at the 3000-level or above.
- Have an overall GPA of 3.5 or higher in 3000 and 4000 level classes.
- Exceptions to these criteria may be granted in special cases through appeal to the Geology Undergraduate Committee.

Application to the program is made by submission of the Honors in Earth Sciences Admission Form to the Earth Sciences Undergraduate Committee. This is usually done in the semester before the student intends to begin the Honors thesis research.

Graduation Requirements

- A minimum GPA of 3.5 in courses in 3000 and 4000 level classes.
- Completion of the B.S. requirements in Geology, including GLY 4989L (Honors Research, 3 credits) and GLY 4970 (Honors Thesis, 3 credits).
- Completion of Honors research in collaboration with Honors supervisor and presentation of a draft of the

Honors thesis to the Earth Sciences Honors Committee.
- Deposition of a completed approved copy of the Honors thesis with the Earth Sciences office.

Minor in Geology

Required courses

At least 17 hours of earth sciences/geology courses which must include the following: GLY 1010+1010L or GLY 3039+3039L, GLY 1100+1100L or GLY 1101+1101L, and GLY 3202+3202L. Additional earth sciences/geology courses must be taken at the 3000 or 4000 level.

Cooperative Education

Students seeking the baccalaureate degree in Geology/Earth Sciences may also take part in the Cooperative Education Program conducted with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters fully employed in industry or a government agency. For further information consult the Department of Earth Sciences or the Department of Cooperative Education.

Course Descriptions

Note: Laboratories may not be taken prior to the corresponding lecture course. Laboratories must be taken concurrently where noted, but students must register for the laboratory separately.

Definition of Prefixes

ESC-Earth Sciences EVS-Environmental Science; GEO-Geography/Systematic; GLY-Geology; MET-Meteorology; OCE- Oceanography; OCG-Oceanography-Geological; OCP-Oceanography/Physical.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ESC 3930 Topics in Earth Sciences (1-5). Selected topics in the earth sciences.

ESC 5005 Earth Science Enrichment Activities for Teachers (1-2). Workshop presenting Earth Science enrichment activities to high school and middle school science teachers.

ESC 5162 Workshop: Microfossil Paleoenvironments (2). Recent foraminifera and diatoms are sampled, prepared and identified from marine to freshwater facies. Taxon distributions are used to interpret paleo-environments. Prerequisite: Permission of the instructor.

EVS 4164 Applied Environmental Geology (3). EVS 4164L Applied Environmental Geology Lab (1). A survey of the geological and geographical factors critical to man's attempt to contend with the natural processes. Construction problems, sewers, waste disposal, dams, ground water, and terrain evaluation in relation to the nature of the underlying substratum. Principles illustrated from South Florida and the Caribbean region in particular. Study of the geological factors involved in future development and growth of these areas, and conservation methods in relation to the geology of these areas. Prerequisites: GLY 1010, GEO 2200, and a sound background in mathematics, physics, and chemistry. Laboratory must be taken concurrently with the course. (S in alternate years)

GEO 2200 Physical Geography (3). GEO 2200L Physical Geography Lab (1). Survey of the physical environment relevant to studies in regional geography and earth sciences. Natural evolution of landforms, and the interacting processes responsible for these features. Environmental modification and deterioration caused by human interaction. Effects of these changes: socio-economic impact and geographic problems. Case studies illustrated from South Florida and the Caribbean region. (F in alternate years.)

GEO 3510 Earth Resources (3). A course for non-majors dealing with the nature, origin, and distribution of mineral resources. Geology of petroleum, coal, metals, etc., and problems of their exploitation and depletion. (F,S,SS)

GEO 3510L Earth Resources Laboratory (1). Introduction to minerals and rocks used by society. Case studies of geologic, environmental and economic aspects of resource extraction and use. Corequisite: GEO 3510.

GIS 3043 Introduction to Geographical Information Systems (3). Introduction to GIS concepts and software such as ArcView. Topics include: cartographic basics, spatial datasets, attributes, map production, spatial statistics and analysis, and obtaining GIS data. Prerequisites: CGS 2060 and MAC 1102.

GLY 1010 Introduction to Earth Science (3). GLY 1010L Introduction to Earth Science Lab (1). Basic survey of Earth materials and structure, plate tectonics, volcanoes, earthquakes, surface processes and groundwater, climate change, earth resources and the impact of geology on society. (Lab fees assessed) (F,S,SS)

GLY 1037 Environmental Hydrology for High School Students (1). Environmental issues surrounding the natural occurrence and human use of surface water and groundwater in South Florida. Includes field trips to local sites of hydrologic/environmental significance.

GLY 1100 Historical Geology (3). GLY 1100L Historical Geology Lab (1). An introduction to the geological history of the earth and the geological time scale. Evolution of animals and plants. Prerequisites: GLY 1010 or GLY 3039 or equivalent. Lecture and lab must be taken concurrently. (S)

GLY 1101 The History of Life (3). GLY 1101L The History of Life Laboratory (1). Interaction of biological and geological principles and processes, history and ecology of past life, and major events such as the marine invasion of land, mass extinctions, and the Ice Age. (F,S)

GLY 2072 Earth's Climate and Global Change (3). Introduction to Earth's climate and the variations of climate through geological and historical time. Emphasis is placed on the importance of the interactions of Earth's crust, atmosphere, biosphere and oceans in affecting the planet's climate. (F in alternate years)

GLY 2072L Earth's Climate and Global Change Lab (1). Practical analysis of the important factors affecting Earth's Climate. Analysis of historical and geological records of climate change. Corequisite: GLY 2072. (F in alternate years)

GLY 3034 Natural Disasters (3). A geological look at catastrophic events including earthquakes, volcanoes,

tsunamis, mass movements, hurricanes, floods, and desertification. Emphasis on the geologic setting in which these natural disasters take place. Special attention will be given to compare similar disasters in the geologic past. Prerequisite: Physical science at the high school level. (F,S,SS)

GLY 3039 Environmental Geology (3). GLY 3039L Environmental Geology Lab (1). The composition and structure of the earth, the internal and external forces acting upon it and the resulting surface features. Case studies and general principles illustrated from South Florida and the Caribbean. Field trips expected. No prerequisites. (F,S,SS)

GLY 3100 Earth through Time (3). Evolution of the Earth through its 4600 million year history, the fossil record and the geologic time scale. Major geologic events of the past and their effects on organic evolution. (S)

GLY 3103 Dinosaurs (3). Survey of the different groups of dinosaurs. Dinosaur biology, geology, and the history of their discovery to further understanding of their life histories, environments, and the causes of their extinction.

GLY 3103L Dinosaurs Laboratory (1). Survey of the different groups of dinosaurs. Laboratory study of dinosaur bones, prints and eggs to further our understanding of their life histories, environments, and the causes of their extinction. Corequisite: GLY 3103.

GLY 3153 Workshop in South Florida and Caribbean Geology (2). Workshop on the geology of South Florida and the Caribbean for science majors. Includes field trips in South Florida. Prerequisite: Permission of the instructor.

GLY 3157 Elements of Caribbean Geology (3). A survey of the geology of the Caribbean and neighboring regions in view of current data and modern concepts of global tectonics. The course summarizes the important points of Caribbean and Central American geology in their relation to mineral and energy resources; natural environmental disasters, especially seismic zones; agriculture; and the geologic potential for future development and industrialization. (S in alternate years)

GLY 3202 Earth Materials (3). Physical and chemical properties of minerals and mineral assemblages, such as rocks and soils. Processes of mineral formation. Prerequisites: GLY 1010 or permission of the instructor and General Chemistry. Corequisite: GLY 3202L. (F)

GLY 3202L Earth Materials Lab (1). Physical and chemical properties of minerals, rocks and soils with emphasis on identification. Application of macroscopic methods, X-ray diffraction, polarized light microscopy, in situ and bulk chemical analysis. Prerequisites: GLY 1010 and GLY 1010L or permission of the instructor and General Chemistry. Corequisite: 3202. (F)

GLY 3220 Optical Mineralogy (3). GLY 3220L Optical Mineralogy Lab (1). Principles and use of the petrographic microscope. Optical properties of isotropic, uniaxial and biaxial minerals. Prerequisites: GLY 3202 or equivalent. Laboratory must be taken concurrently with course.

GLY 3630 Research in Tropical Environments (3). Earth Sciences, Biology and Environmental Studies faculty describe research in marine and terrestrial ecosystems, geology, conservation and education. Students discuss scientific articles.

GLY 3751 Introduction to Mineral Science (2). Workshop introducing properties and uses of minerals, and techniques used to investigate minerals. Prerequisites: One of the following: BSC 1010, CHM 1045, PHY 2053, GLY 1010. (SS)

GLY 3754 Remote Sensing in the Earth Sciences (3). Remote sensing methods for the exploration and investigation of geologic processes and earth resources; airphoto interpretation, processing and analysis of multi-band digital satellite imagery; GIS. Prerequisites: GLY 1010 or permission of the instructor. (F)

GLY 3759 Visualizing Our World With GIS (2). Visualization of geospatial data in the Earth Sciences with Geographic Information Systems. Topics include natural hazards, distribution of water, mineral, and energy resources, and urban sprawl. Prerequisites: MAC 1105, MAC 1114 or equivalent and permission of the instructor. (SS)

GLY 3760 Geological Map Analysis (3). Laboratory course dealing with analysis of geological maps and sections; theory and method of interpretation of surface outcrops on maps. Properties of simple geological structures. Recommended to be taken prior to GLY 4400 and GLY 4791. Prerequisites: Trigonometry, Introduction to Earth Science or equivalent (e.g. MAC 2132, GLY 3039 or equivalents). (F)

GLY 3782 Geology Field Excursion (1-3). A one to three-week field excursion in a region of interest to demonstrate the occurrence, appearance and processes of various geological phenomena. Course may be repeated. Prerequisite: GLY 1010. (F,S,SS)

GLY 3820 Applied Hydrogeology of South Florida (2). Workshop introducing hydrogeology of South Florida, and laboratory and field techniques used to study groundwater. Prerequisites: One of the following: BSC 1010, CHM 1045, PHY 2053, GLY 1010.

GLY 3881 Environmental Geology Field Methods (3). Introduction to commonly used field methods in environmental geology including site evaluation, bore-hole geophysical and hydrogeological techniques, and topographic map skills. Prerequisites: GLY 1010 or GLY 3039.

GLY 3882 Environmental Geology Florida Keys Workshop (2). Workshop introducing environmental geology of the Florida Keys, Bay-Island-Reef transect. Prerequisites: One of the following: BSC 1010, CHM 1045, PHY 2053, GLY 1010, or equivalent. (SS)

GLY 3949/GLY 4949 Cooperative Education in Geology (1-3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluations will be required for each student. (F,S,SS)

GLY 4036 Earth Sciences and Society (3). Explores the new directions of Earth Science studies and examines how they can enhance society's ability to make wise decisions

on resource development, waste disposal, natural hazards. Prerequisites: GLY 1010 or GLY 3039.

GLY 4300 Petrology (3). Origin, composition and classification of igneous, sedimentary, and metamorphic rocks. Observational, theoretical, and experimental studies of rocks. Prerequisite: GLY 3202. (S)

GLY 4300L Petrology Lab (1). Identification of rocks using macroscopic and microscopic techniques. Application of electron microprobe. Prerequisite: GLY 3202. (S)

GLY 4400 Structural Geology (3). GLY 4400L Structural Geology Lab (1). Faults, folds, fractures and other rock structures; their description and representation on maps and diagrams; mechanics of their formation. Prerequisites: GLY 1010 or equivalent; knowledge of trigonometry and algebra. (F)

GLY 4450 Environmental and Exploration Geophysics (3). Introduction to geophysical methods used in exploration and environmental geophysics. Seismic methods; potential fields; electrical and EM methods; ground penetrating radar; geophysical well logging. Prerequisites: GLY 1010 or 3039; MAC 2312 PHY 2049 or 2054; or permission of the instructor. Corequisite: GLY 4450L.(S)

GLY 4450L Environmental and Exploration Geophysics Laboratory (1). Acquisition and interpretation of exploration geophysical data. Seismic, gravity, magnetic, and geoelectrical methods; geophysical well logging. 4-5 field trips to sites in Dade County expected. Prerequisites: GLY 3760 or GLY 4400 or permission of the instructor. Corequisite: GLY 4450. (S)

GLY 4511 Stratigraphy (3). Stratigraphic principles applied to interpreting the rock record. Sediments, depositional environments and dynamics in the sedimentary record. Stratigraphic correlation and the development of the Geologic Time Scale. Prerequisite: GLY 3202. (F)

GLY 4511L Stratigraphy Lab (1). Laboratory analysis of rock facies and index fossils used in the interpretation of the geologic record. Prerequisite: GLY 3202L. (F)

GLY 4551 Sedimentology (3). GLY 4551L Sedimentology Lab (1). Sedimentary processes in the geological cycles, as illustrated in recent environments. Different groups of sedimentary rocks. Primary and secondary sedimentary structures. Physicochemical properties and diagenetic processes. Analytical techniques applied to modern sedi-mentology of both loose and lithified sediments. Prerequisites: Introduction to Earth Science or equivalent; Earth Materials and Stratigraphy and a sound background in mathematics and chemistry. Laboratory must be taken concurrently with course. (S)

GLY 4650 Paleobiology (3). GLY 4650L Paleobiology Lab (1). Development of life as traced through the fossil record. Survey of the main groups of animals commonly found as fossils. Theories of evolution and extinction. Study of the major fossil groups used in biostratigraphic zonation, and as paleoecologic indicators. Prerequisites: Physical and historical geology, general biology, or permission of the instructor. Laboratory must be taken concurrently with course.

GLY 4730 Marine Geology (3). GLY 4730L Marine Geology Lab (1). Survey of the main physiographic provinces of the ocean floor. Modern theories concerning the evolution of the crust; continental drift, seafloor spreading. Distribution and thickness of deep-sea sediments, and their relationship to the morphology and evolution of the crust. Deep-sea mineral resources. Marine geology of the Caribbean from recent data. Sea-bed assessment of mineral resources in the Caribbean and neighboring region. Prerequisites: OCE 3014, GLY 1010, or permission of the instructor. Laboratory must be taken concurrently with course.

GLY 4791 Field Geology and Geologic Mapping (3-6). A three-to six-week field instruction and practice in methods of constructing stratigraphic sections, structural cross sections and geologic mapping using topographic base maps, aerial photos, and surveying equipment. Prerequisites: GLY 4511 and GLY 4511L, GLY 4400 and GLY 4400L. (SS)

GLY 4812 Introduction to Ore Deposits (3). Major classes of metal deposits, their geologic settings and genetic theories, and case studies of great deposits. Environmental, economic and legal aspects of metal extraction, processing and use. Prerequisites: GLY 1010, GLY 1010L or GLY 3039, GLY 3039L. (S)

GLY 4822 Introduction to Hydrogeology (3). Principles of groundwater flow, determination of aquifer properties, geologic factors influencing groundwater flow and quality, legal/regulatory framework for hydrogeology. Prerequisites: One college-level course in physics, chemistry, geology, and calculus, or permission of the instructor. (S)

GLY 4822L Introduction to Hydrogeology Lab (1). Principles of groundwater flow, determination of aquifer properties, geologic factors influencing ground water flow and quality. Prerequisites: CHM 1045, GLY 1010, PHY 2053, MAC 2311, or equivalent. Corequisite: GLY 4822.

GLY 4823 Florida Geologic and Hydrologic Systems (3). Survey of geological formations of Florida and their relationship to hydrologic and mineral resources. Sedimentary facies in relation to their hydrologic properties. Prerequisites: GLY 4822 and GLY 4511 or permission of the instructor.

GLY 4910, GLY 4911 Undergraduate Research in Geology (VAR). Individual research under the supervision of a professor in the student's field of specialization or interest. Subject may deal with laboratory work, field, and/or bibliographical work. Field research in the Caribbean is encouraged. Variable credit to a maximum of 10 credits. Permission of the student's advisor is required. (F,S,SS)

GLY 4970 Geology Honors Thesis (3). Preparation of honors thesis and research seminar. Prerequisite: GLY 4989L.

GLY 4989L Geology Honors Research (1-3). Laboratory and/or field study in consultation with a faculty advisor. Prerequisite: Admission into Geology honors track.

GLY 5021 Earth Sciences for Teachers (3). Study of geological materials and processes, as covered in Introduction to Earth Science, but at a higher level and

with additional assignments. Prerequisite: Permission of the instructor. Corequisite: GLY 5021L. (F,S,SS)

GLY 5021L Earth Sciences for Teachers Laboratory (1). Study of the properties of minerals and rocks; interpretation of topographic and geologic maps; study of the geology of Florida, including field trips. Prerequisite: Permission of the instructor. Corequisite: GLY 5021. (F,S,SS)

GLY 5060 Plant Earth: Dynamic Earth (1). Essentials of metamorphism, rock rheology, seismology, plate tectonics, plate boundaries, plate movement, continential rifting and evolution of mountain belts.

GLY 5106 Paleoecology and Paleoenvironments (3). Paleoecology of fossils, paleobiodiversity, sedimentary facies, and environments, skeletal mineralogy, paleoecological gradients, chronologic scales and paleobiogeography and global patterns. Prerequisite: Permission of the instructor.

GLY 5107 Planet Earth: Evolving Earth (1). Essentials of lithostratigraphy, biostratigraphy, geologic time scale, modern sedimentological processes, sedimentary rocks, evolution and extinction events, paleoenvironments and paleoclimates.

GLY 5158 Florida Geology (3). Detailed lithostratigraphic and biostratigraphic analyses of Southeast Florida and their relationship to tectonics, paleoclimates. Prerequisites: GLY 4511 and GLY 4511L. (S in alternate years)

GLY 5159 Planet Earth: South Florida (1). Geology, water resources and geologic environments of South Florida.

GLY 5195 Topics in Paleoclimatology (3). Broad concepts in paleoclimatology are reviewed and discussed. Topics include climate models, Quaternary climates, dating and pre-Quaternary climates. Prerequisite: Permission of the instructor.

GLY 5245 Water-Rock Interaction (3). Survey of geochemical processes at the water-rock interface. Topics include absorption of inorganic and organic ions, colloid stability in groundwater, mineral dissolution and precipitation. Prerequisites: CHM 1046, MAC 3312, GLY 4822 or permission of the instructor.

GLY 5246 Geochemistry (3). GLY 5246L Geochemistry Lab (1). Origin of chemical elements and principles affecting their distribution in the solar system, solid earth and hydrosphere. Use of chemical data to solve geologic problems. Prerequisites: Introduction to Earth Science and General Chemistry. (F in alternate years)

GLY 5266 Stable Isotope Biogeochemistry (3). Application and theory of stable isotope approaches to biogeochemistry. Topics: Introduction to IRMS machines, C/N/O/H/S (biogeochem. processes), sampling/lab. prep., and recent advances. Prerequisites: One year of chemistry or permission of the instructor.

GLY 5283C Application of ICPES in Geochemistry (3). Determination of elemental abundances in rocks, soils, natural water using inductively coupled plasma emission spectroscopy (ICPES). Instrumental principles, sample selection and preparation methods and application of results to research. Prerequisites: CHM 1045, CHM 1046 or permission of the instructor. (S or SS)

GLY 5286 Research Instrumentation and Techniques in Geology (3). Survey of techniques and instrumentation used in geological research, including computing and data handling. Prerequisites: Graduate standing or permission of the instructor. Corequisite: GLY 5286L. (F)

GLY 5286L Research Instrumentation and Techniques in Geology Lab (1). Introduction to advanced instrumentation and analytical techniques in Geology, including computing and data processing. Prerequisites: Graduate standing or permission of the instructor. Corequisite: GLY 5286. (F)

GLY 5287C Scanning Electron Microscopy with EDS Analysis (3). Imaging and microanalysis of materials using SEM including EDS. Prerequisite: Permission of the instrcutor.

GLY 5288C Electron Microprobe Microanalysis with EDS Analysis (3). Imaging and analysis or geological and other materials using electron microprobe with EDS analysis. Prerequisite: Permission of the instructor.

GLY 5298 Topics in Geochemistry (3). Seminar covering current research in selected areas of low-temperature geochemistry: oceans and oceanic sediments; continental waters and sediments; hydrothermal systems. Prerequisites: GLY 5246 or permission of the instructor. (F)

GLY 5322 Igneous Petrology and Geochemistry (3). Presentation and discussion of current topics in igneous petrology and geochemistry in a seminar format. Prerequisite: Permission of the instructor. (S)

GLY 5329 Planet Earth: Solid Earth (1). Essentials of the formation and evolutiion of the crust mantle and core of the earth. Composition and physical properties. Generation of magmas, their geochemistry.

GLY 5335 Metamorphic Geology (3). Metamorphic mineralogy; characteristics of low, medium and high pressure metamorphic rocks; pressure-temperature determinations; metamorphic textures; modeling and determination of P-T-t paths. (F in alternate years)

GLY 5335L Metamorphic Geology Lab (1). Petrographic examination of metamorphic rocks. (F)

GLY 5346 Sedimentary Petrology (3). Systematic study of sedimentary rocks. Special emphasis on genetical aspects, geochemistry, paleontology, mineralogy, and microfacies. Emphasizes microscopic study. Prerequisite: GLY 4551. Corequisite: GLY 5346L. (F in alternate years)

GLY 5346L Sedimentary Petrology Lab (1). Laboratory studies of sediments and sedimentary rocks with emphasis on microscopic analyses and geochemical techniques. Prerequisites: GLY 4551 and GLY 4551L. Corequisite: GLY 5346. (F in alternate years)

GLY 5408 Advanced Structural Geology (3). Advanced treatment of the theory of rock mechanics to solve problems of natural rock deformation. Prerequisites: GLY 4400, MAC 3413, or permission of the instructor. Corequisite: GLY 5408L. (S)

GLY 5408L Advanced Structural Geology Lab (1). Problem solving in theory of rock deformation. Experimental procedures in rock mechanics. Corequisite: GLY 5408. (S)

GLY 5415 Caribbean Geology and Tectonics (3). Integration of geologic and geophysical data to understand the evolution and present tectonic configuration of the Caribbean area. Prerequisite: Permission of the instructor.

GLY 5425 Tectonics (3). Properties of the lithosphere; plate kinematics and continental drift; characteristics of plate boundaries; mountain belts; formation of sedimentary basins. Prerequisites: GLY 1010, 1100, 4400, 4300, 3202 or permission of the instructor. (S)

GLY 5455 Physical Volcanology (3). Description of volcanoes and their products, geophysical and tectonic constraints on volcanic processes, and modeling and forecasting of volcanic eruptions. Prerequisites: GLY 4450, GLY 4300 or permission of the instructor. (F in alternate years)

GLY 5457 Geophysical Data Analysis (3). Computer analysis and modeling of geophysical data and digital images. Statistical description of data, linear inverse theory, digital signal and image processing. Computer exercises with MATLAB. Prerequisites: GLY 4450, MAP 2302, MAS 3105, PHY 2048, PHY 2049 or permission of the instructor. Corequisite: GLY 5457L. (S)

GLY 5457L Analysis of Geophysical Data Lab (1). Field and laboratory applications of geophysical techniques. Computer aided analysis and three-dimensional modeling of gravity and magnetic data. Prerequisites: GLY 4450, PHY 2048, PHY 2049, MAC 2311, MAC 2312, MAP 2302. Corequisite: GLY 5457. (S)

GLY 5495 Seminar in Geophysics (2). Detailed investigation of current geophysical techniques, including topics on instrument design. Prerequisites: GLY 5457 or permission of the instructor. (F/S)

GLY 5497 Topics in Structural Geology and Tectonics (3). Selected advanced topics in structural geology and rock deformation. Latest advances in crustal tectonics. Prerequisite: GLY 5408. (F/S)

GLY 5599 Seminar in Stratigraphy (3). Discussion of research projects and/or current literature in stratigraphic correlation as derived from sedimentologic principles and biozonation. Prerequisite: GLY 5346. (F)

GLY 5608 Advanced Paleontology I (3). Discussion of current literature and research projects on evolution, systematics functional morphology, with reports by members of the seminar. Prerequisites: GLY 4650 or permission of the instructor. (F)

GLY 5621 Caribbean Stratigraphic Micropaleontology (3). Microscopic study of biostratigraphic type sections from the Caribbean area. Emphasis on planktonic foraminifera and radiolaria, paleoecologic and paleoclimatic interpretations. Prerequisites: GLY 4650 or permission of the instructor. (F)

GLY 5628 Radiogenic Isotope Methods (3). Theory and practice of radiogenic isotope ratio measuring techniques. Use of class-100 clean room facilities, and introduction to thermal ionization mass spectrometry. Prerequisite: General Chemistry.

GLY 5655 Topics in Paleobiology (1-3). Various concepts in paleobiology are reviewed and discussed, based on readings of the literature, including journal articles and books. Prerequisite: Permission of the instructor.

GLY 5710 Watershed Hydrology (3). Hydrologic processes on watershed, water budgets, effects on water quality, field investigative methods using tracers and hydrometric measurements, hydrologic and hydrochemical models.

GLY 5754 Applied Remote Sensing in the Earth Sciences (3). Application of remote sensing and image analysis in the earth sciences; qualitative and quantitative satellite image and air photo interpretation. Emphasis is on use of computer processing packages. Prerequisites: GLY 1010 or permission of the instructor.

GLY 5758 GIS and Spatial Analysis for Earth Scientists (3). Application of GIS technology to spatial problems in the Earth Sciences. Topics include: spatial statistics, sampling theory, surface estimation, map algebra, and suitability modeling.

GLY 5785 Caribbean Shallow-Marine Environments (3). Field study of multiple tropical environments in the Caribbean area. Dynamic processes and coastal evolution in response to natural and human-induced changes.

GLY 5786 Advanced Field Excursion (1-6). A study of the geology of a selected region of the world followed by 10-12 day field trip in order to study the field relationships of the geologic features. Special emphasis is given to stratigraphic, structural and tectonic relationships of lithic package. Prerequisite: Permission of the instructor. (SS)

GLY 5808 Mining Geology (3). Application of theoretical models of ore formation to exploration and the use of geochemical and geophysical techniques in the search for ore deposits. Prerequisites: GLY 4300 and CHM 1046. (F/S)

GLY 5816 Economic Geology (3). Economically important metal deposits of sedimentary, igneous and hydrothermal origins and their geologic settings and characteristics. Prerequisites: GLY 1010, GLY 4300, CHM 1045, CHM 1046. (F)

GLY 5826 Hydrogeologic Modeling (3). Techniques used in modeling groundwater flow and solute transport in geologic systems. Case studies of significant aquifers. Prerequisites: GLY 5827, MAP 2302, or permission of the instructor. (S,SS)

GLY 5827 Hydrogeology (3). Physics of flow in geological media. Saturated and unsaturated flow, groundwater and the hydrologic cycle, estimating hydraulic parameters of aquifers, introduction to chemical transport. Prerequisites: GLY 1010, MAC 2312, and PHY 2053, or permission of the instructor. (F)

GLY 5827L Hydrogeology Lab (1). Laboratory, field, and computer exercises to complement GLY 5827. (F)

GLY 5828 Chemical Hydrogeology and Solute Transport (3). Quantitative analysis of hydrologic, geologic, and chemical factors controlling water quality

and the transport and fate of organic and inorganic solutes in the subsurface. Prerequisite: GLY 5827. (S)

GLY 5834 Field Hydrogeology (3). Field methods in hydrogeology. Drilling, logging, wells, data loggers, hydraulic conductivity/transmissivity measurements, purging, field chemistry parameter measurements, sampling methods. Prerequisites: GLY 4822 or permission of the instructor.

GLY 5835 Introduction to Lattice Boltzmann Methods (3). The course will provide an introduction to Lattice Boltzmann methods for fluid dynamics simulation. Emphasis on multiphase fluids. Prerequisites: Programming Skills, graduate standing, permission of the instructor.

GLY 5889 Geology for Environmental Scientists and Engineers (3). Characterization of rocks and rock masses; geological maps; seismic hazards; weathering of rocks; hydrologic cycle; slope stability; coastal processes; geophysical techniques. Course includes field trips in the South Florida region. Prerequisites: CHM 1045, GLY 1010, or permission of the instructor. (S)

GLY 5931 Graduate Seminar (1). Presentation or critical examination of current research problems in geology. A selection of topics is considered each term. Topics may also include individual research in the student's field of investigation. Prerequisites: Graduate standing or permission of the instructor. (F,S,SS)

MET 3003 General Meteorology (3). A quantitative introduction to the Earth's atmosphere. Topics include tropical and mid-latitude weather, clouds and convection, solar and infrared radiation, general circulation and climate, and an overview of meteorological dynamics. Prerequisites: PHY 2048 or permission of the instructor.

MET 3014 Meteorological Dynamics I (3). A first course in the motions of the Earth's atmosphere. Topics include meteorological coordinates, atmospheric equations of motion, circulation and vorticity, balanced flows, boundary-layers and friction, and atmospheric waves. Prerequisites: MAC 2312, PHY 2048.

MET 3015 Meteorological Dynamics II (3). Second course in the motions of the Earth's atmosphere. Topics include two-dimensional Rossby waves, baroclinc instability, tropical dynamics, and general circulation. Prerequisites: MAC 2313, PHY 2048, or permission of the instructor.

MET 3102 Physical Climatology (3). Climate and its global distribution, the climate controls and processes, the influences of climate on the environment. Corequisite: MET 3003.

MET 3502 Synoptic Meteorology (3). Atmospheric fluid dynamics applied to mid-latitude weather systems. Four - dimensional analysis of weather systems and forecasts. Prerequisite: MET 3003. Corequisite: MET 4301.

MET 3502L Synoptic Meteorology Laboratory (1). Development of diagnostic techniques for understanding of weather systems, using modern technological tools (e.g., we-based data, Doppler radar, satellite and real-time mesoscale models) to do weather forecasting. Prerequisite: MET 3003. Corequisite: MET 4301.

MET 4300 Severe Weather (3). Local wind systems, thunderstorms, squall lines, mesoscale convection systems, hurricanes, and their interactions with synoptic scale systems. Prerequisites: MET 3003, MET 4301.

MET 4301 Dynamic Meteorology I (3). Air motion in rotating coordinates, pressure forces, hydrostatic balance, energy balance, and momentum and mass conservation, circulation and vorticity. Prerequisites: PHY 2048, PHY 2049.

MET 4302 Dynamic Meteorology II (3). Physical mechanisms that control synoptic-scale air motion in mid-latitude, Rossby waves, mesoscale circulations, and general circulations. Prerequisites: PHY 2048, PHY 2049, MET 4301.

MET 4400 Meteorological Instrumentation and Observations (3). Calibration and operation of basic meteorological sensors used to measure temperature, atmospheric flow, pressure, and moisture, including satellite and radar. Prerequisites: PHY 2048, MET 3003.

MET 4420 Physical Meteorology (3). Solar and infrared radiation, first and second thermodynamic law, entropy, phase change, physics of moist air and aerosols, condensation, clouds and precipitation formation processes. Prerequisites: PHY 2048, PHY 2049, MET 3003.

MET 4532 Hurricanes (3). Hurricane formation, motion, and impacts for undergraduates and beginning graduate students in engineering, physical sciences and social sciences. Prerequisite: Permission of the instructor.

OCE 2001 Introduction to Oceanography (3). The oceans, their nature and extent. Water of the oceans, chemical balance. Marine provinces, sediments and their relation to sea life and oceanic circulation, coastal provinces, sediments and their relation to sea life and oceanic circulation, coastal and deep-ocean circulation. Waves, tides, tsunamis. One field trip expected. (F,S,SS)

OCE 3014 Oceanography (3). The ocean origin, physical properties, salinity, temperature, sound. Radiative properties, heat budget and climatic control. Tides, wind-driven motion-monsoon circulation. El Nino phenomenon. Subsurface water masses. Oceanic circulation and paleoclimates. (F,S,SS)

OCE 3014L Oceanography Lab (1). Laboratory investigation of the chemical and physical properties of seawater, ocean water motion and its effects. Corequisite: OCE 3014.

Economics

John H. Boyd III, *Associate Professor and Chairperson*
Nejat M. Anbarci, *Professor*
Jeffrey Bernstein, *Professor*
Mahadev Bhat, *Associate Professor (joint appointment with Environmental Studies)*
Prasad V. Bidarkota, *Associate Professor*
Jesse Bull, *Assistant Professor*
Joel Carton, *Lecturer*
Manuel J. Carvajal, *Professor*
Richard A. Chisik, *Associate Professor*
Irma de Alonso, *Professor*
Alan Gummerson, *Lecturer*
Antonio Jorge, *Professor of Political Economy, (joint appointment with International Realtions)*
Cem Karayalcin, *Professor*
Jungmin Lee, *Assistant Professor*
Panagis Liossatos, *Professor*
Mihaela Pintea, *Assistant Professor*
Jorge Salazar-Carrillo, *Professor and Director, Center for Economic Research and Education*
Peter Thompson, *Professor*
Mira Wilkins, *Professor*
Maria Willumsen, *Associate Professor*

The major in economics provides the student with an understanding of economic problems and institutions, and with analytical tools to apply this knowledge to contemporary problems. The program is designed for the student desiring a career in business, government, international agencies, or multinational corporations; and for those planning graduate study in economics, business, law, public administration, urban studies, or international relations.

Bachelor of Arts

Degree Program Hours: 120

Lower Division Preparation

Required Courses

Common Prerequisites

ECO 2013	Principles of Macroeconomics	
ECO 2023	Principles of Microeconomics	
MAC 2311	Calculus I	
	or	
MAC 2233	Calculus for Business	
STA 2122	Introduction to Statistics I	
	or	
STA 2023	Statistics for Business and Economics	

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60)

Required Courses for the Major (18)

ECO 3101	Intermediate Microeconomics	3
ECO 3203	Intermediate Macroeconomics	3
ECO 3410	Measurement and Analysis of Econ Activity	3
ECO 4421	Introduction to Econometrics	3
ECO 4932	Topics in Theory[1]	3
ECO 4903	Undergraduate Seminar	3

ECO 3410 and ECO 4421 each satisfy the FIU requirement in Computer Competency. ECO 4903 satisfies the requirement in Oral Competency.

Elective Courses for the Major (15)

Five additional upper-division economics courses, of which at least two must be from the following list of courses which require an intermediate theory course as a prerequisite: ECO 4224, ECO 4401, ECO 4504, ECO 4703, ECO 4713, ECP 4031, ECP 4203, ECP 4204, ECP 4314, ECP 4403, ECO 4100, ECO 4237, ECS 4011, ECS 4014.[2]

Electives (27)

[1]This requirement can also be met by taking ECO 4933.
[2]The following courses **cannot** be used as Elective Courses for the Major: ECO 2013, ECO 2023, ECO 3041, ECO 3202, ECO 3949, ECO 4906, ECO 4949.

Combined Bachelor of Arts/Master of Arts (BA/MA) in Economics

The Bachelor of Arts/Master of Arts (BA/MA) degree in Economics program is designed for outstanding undergraduate students. It provides a strong base of knowledge and skills economics, and at the same time accelerates completion of the the Master of Arts degree. Students may take advantage of the overlap of courses in the BA and MA programs to receive their MA degrees in a shorter period than it would otherwise be possible. The incentive to do so is expected to attract students, who would otherwise not be so inclined, into the MA program. The introduction to graduate work that the MA program affords has proven to be a gateway to the PhD program for so many students in the past. This would enable the department to increase its contribution to the University's goal of graduating more PhD students.

The BA program in economics requires that students take 9 upper division elective courses. Students in the BA/MA program would take elective courses that would satisfy both the BA and MA requirement.

The goal is to attract students so that they apply to the program as early as the second semester of their sophomore year. To apply their GPA needs to be significantly above average (3.25). Students would also be required to maintain a high GPA (3.0) to remain in the program. The grade requirements for an MA in economics would apply to courses that are counted toward the MA degree. The BA/MA program in economics (like similar programs in institutions such as the New York University and Boston University) waives the GRE requirement in application.

Admission Requirements

- Current enrollment in the Bachelor's degree program in economics at FIU.
- Completed at least 60 credits of coursework
- Completed Calculus I (MAC 2311) and Calculus II (MAC 2312) or equivalents.
- Current GPA of 3.25 or higher.
- Three letters of recommendation.
- Approval of the Graduate Committee.

General Requirements

Meet the requirements of both the BA and the MA degree in economics.

Overlap: Up to 4 courses (12 credits) may be used in satisfying ***both*** the Bachelor's and Master's degree requirements in economics.

Minor in Economics: (18)

Required Courses for the Minor(12)

ECO 2013	Principles of Macroeconomics	3
ECO 2023	Principles of Microeconomics	3
ECO 3101	Intermediate Microeconomics	3
ECO 3203	Intermediate Macroeconomics	3

Elective Courses for the Minor (6)

Two Additional economics courses[1] 6

[1]The following courses **cannot** be used as Elective Courses for the Minor: ECO 3041, ECO 3202, ECO 3949, ECO 4906, ECO 4949.

Tracks in the Major

Economic majors have the option of choosing their electives in economics in such a way as to satisfy the requirements for one or more specialized Tracks in the major. If the requirements for a Track are satisfied, the student's transcript will show a major in economics with specialization in the Track.

Each Track consists of:

1. A core set of economics courses from which the student must successfully complete at least two;
2. A secondary set of of economics courses from which the student must successfully complete at least one.

One or more Tracks may not be offered in a given year. Majors in economics may choose among the following Tracks:

Track in International Economics

Core Courses:

ECO 4703	International Trade Theory & Policy	3
ECO 4713	International Macroeconomics	3

Secondary Courses:

ECS 3003	Comparative Economic Systems	3
ECO 4701	World Economy	3
	or	
ECO 5709	World Economy	3

Track in the Economics of Public Policy

Core Courses:

ECO 4504	Public Finance	3
ECP 4204	Theory of Labor Economics	3

Secondary Courses:

ECP 3203	Introduction to Labor Economics	3
ECO 3223	Money & Banking	3
ECP 3302	Introduction to Environmental Economics	3
ECP 3410	Introduction to Public Economics	3
ECP 4314	Natural Resource Economics	3
ECP 3451	Law & Economics	3

Track in the Economics of Business and Industry

Core Courses:

ECP 4403	Industrial Organization	3
ECO 4100	Managerial Economics	3
ECO 4237	Money, Interest & Capital	3
ECO 4400	Economics of Strategy and Information	3

Secondary Courses:

ECO 3223	Money and Banking	3
ECO 4224	Issues in Money & Banking	3
ECP 3203	Introduction to Labor Economics	3

Track in Economic Development

Core Courses:

ECS 4011	Development Economics I	3
ECS 4014	Development Economics II	3

Secondary Courses:

ECO 4703	International Trade Theory & Policy	3
ECO 4713	International Macroeconomics	3
ECP 4031	Cost-Benefit Analysis	3
ECS 3013	Introduction to Economic Development	3
ECS 3401	The Brazilian Economy	3
ECS 3402	The Political Economy of South America	3
ECS 3403	Economics of Latin America	3
ECS 3404	Economic Integration/Latin America	3
ECS 3430	The Economic Development of Cuba/Past & Present	3
ECS 3431	Economics of the Caribbean Basin	3
ECS 3432	Economic Integration/Caribbean	3
ECS 3200	Economics of Asia	3

Course Descriptions

Definition of Prefixes

ECO-Economics; ECP-Economic Problems and Policy; ECS-Economic Systems and Development.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ECO 1000 Introduction to Economics (3). A one-semester introduction to economics. Includes microeconomics: the economics of individual units in the economy, like households and firms; and macroeconomics: the economics of aggregate problems like inflation, unemployment, and growth. Does not substitute for either ECO 2013 or ECO 2023.

ECO 2013 Principles of Macroeconomics (3). Introduction to economic analysis of the overall economy: national income accounting, unemployment, inflation, monetary and fiscal policies, budget deficits and debt, long-run growth. (F,S,SS)

ECO 2023 Principles of Microeconomics (3). Introduction to economic analysis of individual units—households and firms. Operation of markets; supply and demand analysis. (F,S,SS)

ECO 3041 Consumer Economics (3). Consumer behavior; advertising and other influences affecting demand. Patterns of consumer expenditure; effects of public policy on family incomes and consumption patterns. The consumer protection movement. Does not count as economics elective toward economics major. (F,S,SS)

ECO 3101 Intermediate Microeconomics (3). Analysis of markets, theory of firm, demand and production theories, general equilibrium, and welfare economics. Prerequisite: ECO 2023. (F,S)

ECO 3202 Applied Macroeconomics (3). Aggregate economic performance and business conditions analysis, nature and causes of economic expansions and recessions, inflation, balance of trade, balance of payments, and exchange rate problems, fiscal and monetary policies, short-run instability and long-run growth. Cannot be taken for credit concurrently with, or after taking ECO 3203. Prerequisite: ECO 2013. (F,S,SS)

ECO 3203 Intermediate Macroeconomics (3). Analysis of the aggregate economy in the long-run (full

employment, economic growth, productivity) and the short-run (unemployment, business cycles); economic policy for short-run stability and long-run growth (monetary and fiscal policies, budget deficit, inflation, and debt); balance of payments and exchange rate. Prerequisite: ECO 2013. (F,S)

ECO 3223 Money and Banking (3). Elements of monetary theory; relationships between money, prices, production, and employment; factors determining money supply; history and principles of banking, with special references to the United States. Prerequisite: ECO 2013. (F)

ECO 3303 Development of Economic Thought (3). Evolution of economic theory and doctrine. Contributions to economic thought from ancient times to J. M. Keynes. Emphasis on institutional forces shaping the continuum of economic thinking. (S)

ECO 3304 Economic Forces and the Development of Western Ideas (3). Analyzes the emergence and evolution of western views and doctrines in light of the interaction of market forces, technology, and key events.

ECO 3410 Measurement and Analysis of Economic Activity (3). Covers statistical methods as applied in economics. Topics include estimation and hypothesis testing, analysis of variance, and single and multiple regression models. Prerequisites: STA 2023 or equivalent. Satisfies requirement in computer literacy. (F,S)

ECO 3933 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum.

ECO 3949 Cooperative Education in Economics (1-3). A student majoring in Economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Does not count as economics elective toward economics major.

ECO 4100 Managerial Economics (3). Economic analysis of problems managers of firms face, such as choosing production levels, deciding how much labor to hire, budgeting capital, and dealing with uncertainty. Prerequisites: ECO 3101, Calculus, and Statistics.

ECO 4237 Money, Interest, and Capital (3). Economic analysis of the asset markets and the effect of monetary policy; interest rates and intertemporal choice; asset pricing; efficient market hypothesis and economic behavior models in asset markets. Prerequisites: ECO 3101 and ECO 3203 or permission of the instructor.

ECO 4224 Issues in Money and Banking (3). Current controversies in the conduct of monetary policy; innovations in financial markets and instruments, and their impact on the targets and long-run goals of central banks. Prerequisites: ECO 3203 or ECO 3202.

ECO 4321 Radical Political Economy (3). The relationship between Marxist and orthodox economists. Attention given to the New Left and other current criticisms of capitalist economies. Multinational corporate policy, concentration of economic power, income distribution, and Third World development.

ECO 4400 Economics of Strategy and Information (3). Combines neoclassical economics with game theory and the ecomonics of information to better understand markets in the real world. Prerequisites: Calculus and Intermediate Microeconomics or permission of instructor.

ECO 4401 Introduction to Mathematical Economics (3). Mathematical formulation of economic theory. Mathematical treatment of maximizing and optimizing behavior; applications to consumer and business firm theory, value, economic strategies, growth and stability. Emphasis on understanding of analytical techniques. Prerequisites: ECO 3101 or ECO 3203 (preferably both), and Calculus. (F,S)

ECO 4421 Introduction to Econometrics (3). Application of statistics and economic theory to formulating, estimating, and drawing inferences about relationships among economic variables. Coverage includes linear regression model, heteroscedasticity, serial correlation, multicollinearity, and simultaneous equations. Prerequisites: ECO 3101, ECO 3203, and ECO 3410, or permission of the instructor. Satisfies requirement in computer literacy. (F,S)

ECO 4504 Introduction to Public Finance (3). Describes the way resources are allocated in a market economy and cases where markets fail. Analyzes government expenditure policy, principles of taxation, and the various taxes in use today. Prerequisite: ECO 3101. (S)

ECO 4622 Economic History of the United States (3). The growth of the American economy from colonial times to the present. Special emphasis on market forces, institutional arrangements, and policies contributing to this expansion. (F)

ECO 4623 American Business History (3). The growth of American business from 1880 to present; integration, diversification, and foreign expansion. Business strategies and managerial structures.

ECO 4701 World Economy (3). A broad overview of the international economy in historical perspective. Topics: economic demography, trade flows, capital movements, diffusion of technology, the emergence of transnational institutions. The student obtains a conception of how economic interdependence has developed.

ECO 4703 International Trade Theory and Policy (3). Causes and consequences of international trade; effects of tariffs and quotas; strategic trade and industrial policies; political economy of protectionism; international economic integration; factor movements; and multinational firms. Prerequisite: ECO 3101. (F)

ECO 4713 International Macroeconomics (3). Analysis of output, inflation, business cycles and economic policy in open economy settings; exchange rate regimes (fixed versus flexible exchange rate); fiscal, monetary, and exchange rate policies. Prerequisite: ECO 3203. (S)

ECO 4733 Multinational Corporation (3). Growth and development of multinational enterprise. Theories of direct foreign investment. Impact on the United States and other developed and less developed nations. Policy implications relating to employment, economic growth, balance of payments, taxation, and national defense. National sovereignty and the multinational corporation.

ECO 4903 Undergraduate Seminar (3). Small class in which students will discuss readings, write research paper,

and defend research and ideas orally. Satisfies SACS requirement in oral competency. Prerequisites: ECO 3101 and ECO 3203.

ECO 4906 Undergraduate Tutorial (1-6). Supervised readings, individual tutorial, and preparation of reports. Requires consent of faculty supervisor and Department Chairperson. Does not count as economics elective toward economics major.

ECO 4932, 4933 Topics in Theory (3,3). Study of a particular topic or a selected number of topics in economics theory not otherwise offered in the curriculum. Prerequisites: ECO 3101, ECO 3203, and MAC 2311 or permission of the instructor. (F,S)

ECO 4934 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum. May be repeated for credit with permission of Department. Prerequisite: Permission of the instructor.

ECO 4949 Cooperative Education in Economics (1-3). A student majoring in economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Does not count as economics elective toward economics major.

ECO 5709 The World Economy (3). Designed to give an overview of the crucial issues in the world economy. The course covers trade, capital, labor, and technology flows; transnational economic organizations; current economic crisis; global economic interdependence; and the nature and characteristics of international economic order. Required for MIB Program. (S)

ECO 5735 Multinational Corporations (3). Economic theory and multinational corporations. Economic effects. Consequences of nationalization. Spread of the multinational form. State-owned multinational corporations. Prerequisite: Permission of the instructor for undergraduates. (S)

ECO 5906 Advanced Individual Study (1-6). Supervised readings, individual tutorial, and preparation of report. Requires consent of faculty supervisor and Department Chairperson. Open to seniors and graduate students.

ECO 5945 Internship (3). Directed individual study which assists the student in using economic analysis in his employment. Prerequisite: Permission of the chair.

ECP 3123 Economics of Poverty (3). Poverty in the United States: its measurement and history. Theory of personal income distribution. Present and proposed policies to alleviate poverty.

ECP 3143 Economics of Racism (3). Analysis and examination of the economic costs of racism to the individual and society. A perspective from mercantilism to the post industrial contemporary world; international racial aspects of development, income distribution and wealth.

ECP 3203 Introduction to Labor Economics (3). Basic introduction to supply and demand for labor. Discusses labor markets in both historical and institutional context emphasizing why certain patterns have occurred and contemporary institutions developed. Prerequisite: ECO 2023.

ECP 3254 Women, Men and Work in the USA (3). Analyzes the performance of women in comparison to men in the US labor market.

ECP 3302 Introduction to Environmental Economics (3). Economic principles applied to environmental problems. Relationship of market and non-market forces to environmental quality. Development of tools for policy analysis. Prerequisites: ECO 2023, or permission of the instructor. (F,S,SS)

ECP 3410 Introduction to Public Economics (3). An introduction to the applied economics of the public sector and the microeconomics of public policy making and administration.

ECP 3451 Law and Economics (3). The relationship of economic principles to law and the use of economic analysis to the study of legal problems. Topics include: property rights and contracts, and economic analysis of legal decision making. Prerequisites: ECO 2013 and ECO 2023 or equivalents.

ECP 3533 Health Systems Economics (3). Identification of health systems issues and basic instruments of health systems analysis including the market mechanism, insurance and cost-benefit analysis.

ECP 3613 Introduction to Urban Economics (3). Study of urban areas, their characteristics and economic functions. Topics include location decisions of firms and households, economies of agglomeration, transportation, land use, zoning, urban growth and development policies, urban dimensions of economic and social problems, and the public sector in urban areas. (F)

ECP 4004 Seminar on Current Economic Topics (3). Faculty and student discussion of contemporary economic and social issues.

ECP 4031 Cost-Benefit Analysis (3). Covers cost-benefit analysis, cost-effectiveness analysis, benefit-risk analysis, risk-risk analysis, and systems analysis as applied in the government sector for public investment decisions. Prerequisites: ECO 3101 or equivalent.

ECP 4204 Theory of Labor Economics (3). Neo-classical theory of labor demand and labor supply, human capital theory and critiques. Current programs of human resource development and income maintenance are discussed. Prerequisite: ECO 3101.

ECP 4314 Natural Resource Economics (3). Natural resources and the economy; economics of renewable and nonrenewable resource harvesting and management; public policy options for influencing resource consumption and their environmental implications. Prerequisites: ECP 3203 and ECO 3101, or permission of the instructor.

ECP 4403 Industrial Organization (3). Theory of the firm, market structure; business strategies and conduct. Topics include information and advertising, product durability, technical change, antitrust and trade policies, and regulation. Prerequisite: ECO 3101.

ECS 3003 Comparative Economic Systems (3). Analysis of alternative economic systems. Emphasis on the contrast between market-oriented capitalist economies and Soviet-style planned economies, and on the process

of transition from planned to market-oriented systems. Prerequisites: ENC 1101 and ENC 1102.

ECS 3013 Introduction to Economic Development (3). Structural and institutional determinants of economic development; economic analysis and policy formation. Topics include theories of economic development, economic growth, income distribution, rural-urban migration, industry and agriculture, unemployment, education, international trade, economic reform, and the environment. Prerequisites: ECO 2013 and ECO 2023. (F,S)

ECS 3021 Women, Culture, and Economic Development (3). Analysis of problems facing women in developing countries, focusing on gender and cultural issues and their relationships to economic development. Prerequisites: ECO 2013 and ECO 2023 or permission of the instructor.

ECS 3200 Economics of Asia (3). Economic analysis of the problems of poverty, malnutrition and income inequality in South Asia. Rural poverty and agricultural transformation. The East Asian Miracle. The Asian Crisis. Economic liberalization in Asia. Prerequisites: Macro and Micro Principles or permission of the instructor.

ECS 3401 The Brazilian Economy (3). Examines the evolution of Brazilian economy, focusing on the process of its industrialization in the 20th century, the policies to achieve it, its impact on the socioeconomic environment and the adjustments of institutions to the structural changes in the economy. Prerequisites: ECO 2013 and ECO 2023.

ECS 3402 The Political Economy of South America (3). An introduction to the political economy of the South American countries, with emphasis on the opening of the region's economies, privatization and deregulation, debt crisis, foreign investment, poverty, income distribution, human resources, and regional trade agreements. Prerequisites: ECO 2013 and ECO 2023. (F)

ECS 3403 Economics of Latin America (3). Study of current economic issues facing Latin American countries, including population growth, poverty, inequality, inflation, trade and balance of payment problems, economic reform, and regional integration. Prerequisites: ECO 2013 and ECO 2023. (S)

ECS 3404 Economic Integration/Latin America (3). Analysis of the methods, meaning and implications of economics in Latin America. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation.

ECS 3430 The Economic Development of Cuba/Past and Present (3). Survey of the Cuban economy under capitalist and Marxist ideologies. Emphasis on the transition stage and on current policies of economic and social change. (F)

ECS 3431 Economics of the Caribbean Basin (3). Survey of the economic systems of the major countries of the Caribbean. Special attention devoted to current problems of economic growth and social transformation. Prerequisite: ECO 2013.

ECS 3432 Economic Integration/Caribbean (3). Analysis of the methods, meaning, and implications of economic integration in the Caribbean. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation.

ECS 3704 International Economics (3). Explorations of why nations trade, effects of trade on distribution, commercial policy, balance of payments adjustment; exchange rate determination, Eurocurrency markets, and international institutions. Prerequisites: ECO 2013 and ECO 2023.

ECS 4011 Development Economics I (3). Problems of poverty, malnutrition, inequality, and development. Population growth and development. Rural-urban resource flows. The urban informal sector. Credit markets in agriculture. Land-labor contracts. Prerequisites: Intermediate Microeconomics and Intermediate Macroeconomics or permission of the instructor.

ECS 4014 Development Economics II (3). Economic analysis of why some countries are rich and some are poor, why some countries grow fast and others do not. The role of ideas, infrastructure, R & D, and education play in economic growth. Prerequisites: ECO 3101 and ECO 3203 or permission of the instructor.

ECS 5005 Comparative Economic Systems (3). A critical evaluation of the design, goals, and achievements of economic policies in capitalist and socialist economies. Prerequisite: Permission of the instructor for undergraduates.

ECS 5025 Economic Planning (3). Analysis of planning methods in capitalist and socialist economies. Evaluation of macro and micro economic planning tools (input-output) and programming techniques. Theory and practice of economic development planning of agriculture, industrialization, foreign trade, and manpower. Prerequisites: Graduate standing or permission of the instructor.

ECS 5406 Latin American Economies (3). Economic theory and its applications to current economic issues of Latin America. Examines aggregate demand and supply, fiscal and monetary policies, international trade trends, and economic development. Taught in Spanish. May not be taken for credit towards a degree in Economics.

English

Carmela Pinto McIntire, *Associate Professor and Chairperson*
Heather R. Andrade, *Assistant Professor*
St. George Tucker Arnold, *Associate Professor*
Joan L. Baker, *Associate Professor*
Lynne Barrett, *Professor*
Lynn M. Berk, *Professor Emerita*
Gisela Casines, *Associate Professor and Associate Dean*
Cynthia Chinelly, *Lecturer*
Maneck Daruwala, *Associate Professor*
Carole Boyce Davies, *Professor*
Vernon Dickson, *Assistant Professor*
John Dufresne, *Professor*
Denise Duhamel, *Associate Professor*
James Hall, *Professor*
Peter Hargitai, *Instructor*
Kimberly Harrison, *Associate Professor and Director of Undergraduate Writing*
Bruce Harvey, *Associate Professor*
Marilyn Hoder-Salmon, *Associate Professor*
Tometro Hopkins, *Associate Professor*
Kenneth Johnson, *Associate Professor and Vice Provost of Academic Affairs*
Jeffrey Knapp, *Instructor*
Anna Luzczynska, *Assistant Professor*
Kathleen McCormack, *Professor*
Campbell McGrath, *Professor*
Kathryn McKinley, *Associate Professor*
Phil Marcus, *Professor*
Asher Z. Milbauer, *Professor and Director of Graduate Studies in Literature*
Yvette Piggush, *Assistant Professor*
Robert Ratner, *Instructor*
Meri-Jane Rochelson, *Professor and Associate Chairperson, Biscayne Bay Campus*
Richard Schwartz, *Professor*
Ronn Silverstein, *Instructor*
Lester Standiford, *Professor and Director of Creative Writing Program*
Andrew Strycharski, *Assistant Professor*
Richard Sugg, *Professor*
James Sutton, *Associate Professor*
Ellen Thompson, *Associate Professor*
Dan Wakefield, *Lecturer and Writer-in-Residence*
Donald Watson, *Professor*
Donna Weir-Soley, *Assistant Professor*
Barbara Weitz, *Instructor*
Feryal Yavas, *Lecturer and Director of the Linguistics Program*
Mehmet Yavas, *Professor*

Bachelor of Arts in English

Degree Program Hours: 120

Lower Division Requirements

Common Prerequisites

ENC 1101	Freshman Composition
ENC 1102	Literary Analysis

Recommended Courses

ENG 2012	Approaches to Literature
AML 2011	Survey of American Literature I
AML 2022	Survey of American Literature II
ENL 2012	Survey of British Literature I
ENL 2022	Survey of British Literature II

To qualify for admission into the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise accepted into the program.

Upper Division Requirements

(36 hours in 3000- and 4000-level courses)
One course within **each** of the following seven areas or historical periods:
Medieval Literature (to 1500)
British Literature 1500-1660 or Shakespeare
British Literature 1660-1900
Modern British Literature (1900 to Present)
American Literature to 1860
American Literature from 1860
Multicultural Literature (African American, Jewish, literature of exile, etc.)

(**Note:** This list of periods/areas is **not** a list of course titles; students should visit the English Dept. office (or go online to www.fiu.edu/~english/advisement.htm) for a list of courses which fulfill each period/area requirement.)

Linguistics: (One course, three hours):

LIN 3013	Introduction to Linguistics
LIN 4680	Modern English Grammar

Electives: (12)

Upper division electives in writing, film, literature, and/or linguistics. The English Department recognizes a continuing obligation to insure that its majors write well. The Chairperson may require any English major to take the appropriate composition course. English majors may choose to take a general program of English studies or may select one of the Department's three areas of emphasis: literature, language and linguistics, or creative writing. Majors should choose their English courses and electives in consultation with their advisors, especially upon entering the program.

Additional Approved Electives: (24)

Students should consult with a departmental advisor.

Minor in English

Students majoring in any other discipline may minor in English.

There are several advantages for obtaining this minor. First, students expand their knowledge of literature written in English, deepening the liberal arts portion of their undergraduate education. Second, in the courses that the Department of English offers, writing skills are emphasized, so students should learn to develop complex and sophisticated arguments through the analysis of literary work. The training students receive in these courses can prepare them for careers in which writing and editing are of the greatest significance, or in which critical thinking skills are valued.

Requirements

Fifteen hours in 3000 and 4000-level courses

Period Courses: (Two courses - Six hours)

1. One course in British literature before 1800
   or
   One course in American literature before 1860

2. One course in British literature after 1800
   or
   One course in American literature after 1860

Note: In addition to these courses, the Department may designate specific courses each semester which will fulfill these requirements

3. Three courses (nine hours) at the 3000 and 4000-level in the Department of English.

Course Descriptions

Definition of Prefixes

AML-American Literature; CRW-Creative Writing; ENC-English Composition; ENG-English-General; ENL-English Literature; FIL-Film Studies; HUM-Humanities; LIN-Linguistics; LIT-Literature;

AML 2010 Survey of American Literature I (3). Students read and discuss major American works written between 1620 and 1865. Works will be considered in an historical context.

AML 2020 Survey of American Literature II (3). Students will read and discuss major American works written between 1865 and the present. Works will be examined in an historical context.

AML 2602 African-American Literature (3). Offers a survey of African-American literature spanning its genesis to the present. Includes units on major eras and major figures in the development of the literary traditions. May be repeated.

AML 3004 American Folklore (3) An examination of the variety of American folklore from the very earliest expressions to the present. Prerequisites: ENC 1101 and ENC 1102.

AML 3032 The American Revolution in Literature (3). Study of writings created at the time of the American Revolution and those of later authors in order to evaluate how American writers have shaped our sense of the Revolution. Prerequisites: ENC 1101 and ENC 1102.

AML 3042 Texts and Contexts: American Literature 1492 to the Present (3). Survey of American fiction, poetry, and drama from 1492 to the present, that examines the interactions between literacy texts and social, cultural, or political currents. Prerequisite: ENC 1102.

AML 3111 American Fiction to 1900 (3). Study of representative fiction by American authors from the Colonial period to 1900. Authors include Brown, Irving, Cooper, Hawthorne, Melville, Twain, Chopin, James, and others. Prerequisites: ENC 1101 and ENC 1102.

AML 3262 Modern Southern Short Story (3) The contributions of twentieth-century writers of the South to the short story genre. Includes the work of Faulkner, O'Connor, Welty and McCullers. Prerequisites: ENC 1101 and ENC 1102.

AML 3401 American Humor (3) This course examines the writings of American humorists from the beginnings to the present. Special attention is given to the writings of Twain and Thurber. Prerequisites: ENC 1101 and ENC 1102.

AML 3415 American Literature and the Tradition of Dissent (3). Explores selected texts to examine the interactions between texts and social, cultural, and political currents from colonial times through the present. Prerequisites: ENC 1101 and ENC 1102.

AML 4120 Modern American Fiction (3) Study of American novels and short stories written in the twentieth century. Among the writers to be read are John Barth, Alice Walker and Flannery O'Connor. Prerequisites: ENC 1101 and ENC 1102.

AML 4155 Modern American Poetry (3) Study of American poetry written in the twentieth century. Among the poets to be examined are Elizabeth Bishop, Gwendolyn Brooks and Richard Wilbur. Prerequisites: ENC 1101 and ENC 1102.

AML 4213 Studies in Colonial and Early American Literature (3). Students read, discuss, and write about literature of the Colonial and Early American periods from the time of the Puritans through the period of the Early Republic. Prerequisites: ENC 1101 and ENC 1102.

AML 4216 Colonial Literature (3). American Literature from the settlement of the continent through 1776. Prerequisites: ENC 1101 and ENC 1102.

AML 4221 Early National Literature (3). Examines the major literary works of the period 1776-1825. Prerequisites: ENC 1101 and ENC 1102.

AML 4223 Antebellum Literature (3). Examines the writings of the period 1825-1860, including Hawthorne, Poe, and Harriet Jacobs. Prerequisites: ENC 1101 and ENC 1102.

AML 4245 Modernism and Post-Modernism in American Literature (3). The course provides working definitions of modernism and post-modernism and will consider how the writers of the twentieth century use those outlooks while addressing political, social, and personal issues. Prerequisites: ENC 1101 and ENC 1102.

AML 4263 Contemporary Southern Writers (3) Study of the literature of the modern South, its uniqueness and variety. Some of the writers included are Tennessee Williams, Eudora Welty and William Faulkner. Prerequisites: ENC 1101 and ENC 1102.

AML 4606 Studies in 19th-Century African American Literature (3). An examination of literary works written by African Americans during the 19th Century. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

AML 4607 Studies in 20th-Century African American Literature (3). An examination of literary works written by African Americans during the 20th Century. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

AML 4621 Major African American Writers (3). An examination of selected African American writers. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

AML 4624 African American Women Writers (3). A study of the writings of African American women. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

AML 4300 Major American Writers (3). Each section of this course will consider the works of one, two, or three major American writers. The writers studied in this course will change from semester to semester. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

AML 4306 Mark Twain (3) Study of the writings of American humorist and novelist Mark Twain including *Roughing It*, *Innocents Abroad* and *Huckleberry Finn*. Prerequisites: ENC 1101 and ENC 1102.

AML 4312 Hemingway, Fitzgerald and Faulkner (3) Analysis of the most important novels of Hemingway, Fitzgerald and Faulkner including *The Sun Also Rises*, *The Great Gatsby* and *The Sound and the Fury*. Prerequisites: ENC 1101 and ENC 1102.

AML 4503 Periods in American Literature (3). Individual sections will read and discuss works in the colonial, federal, antebellum, reconstruction, or modern periods. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

AML 4930 Special Topics in American Literature (3). An examination of different aspects of American literature. May be repeated with a change of content. Prerequisites: ENC 1101 and ENC 1102.

AML 5305 Major American Literary Figures (3). Each section will consider the lifework of several authors such as Hawthorne, Melville, Whitman, Twain, James, Faulkner, Mailer, Wright, Baldwin. May be repeated with change of content.

AML 5505 Periods in American Literature (3). The literature and criticism regarding one specified period of American literature, such as colonial, federal, transcendental, antebellum, or twentieth century. May be repeated with change of content. Prerequisite: Permission of the instructor.

CRW 2001 Introduction to Creative Writing (3). Beginning course designed to acquaint students with elementary critical vocabulary and writing skills necessary for the writing of poems and short fiction. Students may also be required to read and discuss published writing. Prerequisites: ENC 1101 and ENC 1102 or equivalent.

CRW 3111 Narrative Techniques (3). Analysis of and exercises in the elements of fiction: point of view, conflict, characterization, tone. Students will do various short assignments and one short story. Reading of published fiction will also be required. Prerequisite: CRW 2001.

CRW 3311 Poetic Techniques (3). Analysis of and exercises in poetic techniques. Students will write poems in which they employ one or more technical skills. Reading and discussion of published poems will be required. Prerequisite: CRW 2001.

CRW 4110 Writing Fiction (5). An intermediate course in writing fiction. May be repeated. Prerequisite: CRW 3111.

CRW 4310 Writing Poetry (5). An intermediate course in writing poetry. May be repeated. Prerequisite: CRW 3311.

CRW 4900 Independent Study in Creative Writing (3). Development and completion of an independent project in creative writing undertaken with the consent of the instructor. Prerequisite: CRW 2001.

CRW 4930 Special Topics in Creative Writing (1-5). A course designed to give students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisite: CRW 2001.

CRW 4931 Special Topics in Creative Writing (1-5). Gives students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisites: CRW 2001 and three hours of CRW on the 3000/4000 level.

ENC 1930 Essay Writing (3). A course in writing short descriptive, analytic, and argumentative essays. Does not fulfill core curriculum requirement. Students who have completed ENC 1101 or ENC 1102, or both, cannot receive credit for this course.

ENC 1101 Freshman Composition (3). Students will be introduced to the principles and process of expository, persuasive, and reflective writing. The first of a two-semester freshman composition sequence. Written work meets state composition requirement of 6,000 written words.

ENC 1102 Literary Analysis (3). A continuation of ENC 1101. Develops an analytical, aesthetic, and cultural sensitivity to literature and further explores the techniques of composition and library research.

ENC 1200 Business Letter and Reports (3). Intensive instruction and practice in the organization, content, and style of business letters of all kinds: special correspondence formats (bid proposals, customer relations), memoranda, feasibility reports, speeches, and group conference reports.

ENC 2210 Technical Writing (3). Effective presentation of technical and semi-technical information: technical description, information gathering, general technical reports, organization and development of information, process communication. Written work meets state composition requirement of 6,000 written words.

ENC 2301 Expository Writing (3). An advanced composition course in the techniques of exposition, argumentation, and persuasion. Written work meets state composition requirement of 6,000 written words.

ENC 3211 Report and Technical Writing (3). For business, professional, and scientific students needing practice in collecting, organizing, interpreting, and presenting factual material. Prerequisites: ENC 1101 and ENC 1102.

ENC 3311 Advanced Writing and Research (3). Provides instruction in the concepts and methods of critical response and argumentation, and in the formulation, analysis, and presentation of original research in extended academic papers. Written work meets state composition requirement of 6,000 written words. Prerequisites: ENC 1101, ENC 1102, or equivalent.

ENC 3317 Writing Across the Curriculum (3). An interdisciplinary, upper division writing course in which students explore substance and style as they compose essays on subjects from various fields. Written work meets state composition requirement of 6,000 written words. Prerequisites: ENC 1101 and ENC 1102.

ENC 4240 Report Writing (3). Instruction and practice in writing reports for practical purposes. Collecting,

organizing, and interpreting facts, then writing up findings in report form and style. Includes recommendation reports, use of graphical elements, writing manuals and instructions, physical research reports, feasibility reports, progress reports, other specialized report formats. Prerequisites: ENC 1200 or ENC 2210.

ENC 4241 Scientific Writing (3). Develops skills necessary to write laboratory reports, scientific proposals, articles, research reports, progress reports, and seminar presentations. Prerequisites: ENC 1101 and ENC 1102.

ENC 4355 Writing About Film (3). Introduces students to writing critical reviews and analyses of film narrative. Prerequisites: ENC 1101 and ENC 1102.

ENC 4930 Special Topics in Composition (3). Allows students to refine nonfiction writing skills in a variety of genres. May be repeated. Prerequisites: ENC 1101, ENC 1102 or equivalent.

ENG 2001 Modes of Inquiry (3). A research and report writing course. A final research project is required. Basic bibliographical tools, library use, and technical and scientific reporting will be the main subject matter, emphasizing style, structure, and tone in a variety of research modes.

ENG 2012 Approaches to Literature (3). In this course, students will study analysis of the meaning and artistry of literary texts. Students will read and interpret representative poems, short stories, and plays. Written work meets state composition requirement of 6,000 written words.

ENG 2100 Introduction to Film (3). Introduces students to the basic artistic and compositional elements of film and the analysis of the relationship between technical and aesthetic aspects of film. Prerequisite: ENC 1101.

ENG 3138 The Movies (3). Viewing and discussion of films, with attention to cinematic ways of story-telling and to the popular film as an expression of cultural values. May be retaken for credit with change of content. Prerequisites: ENC 1101 and ENC 1102.

ENG 3930 Proseminar in English Studies (3). An introduction to literary studies, examining the history and structure of the discipline practiced in various kinds of formal analyses, critical writing, and literary research. Prerequisites: ENC 1101 and ENC 1102.

ENG 4013 History of Literary Criticism (3). A study of the major texts in literary criticism and theory from Plato to the present. Prerequisites: ENC 1101 and ENC 1102.

ENG 4022 Rhetoric and Poetics (3). Ancient and modern theory and practice in discussing the formal properties of elevated language. Prerequisites: ENC 1101 and ENC 1102.

ENG 4023 Semiotics and Narratology (3). This course studies Semiotics (the science of signs and sign system) and Narratology (theories about the nature of narratives) in an attempt to characterize the nature of how a story gets told/shown. Prerequisites: ENC 1101 and ENC 1102.

ENG 4043 Contemporary Literary Theory and Criticism (3). An examination of the works of recent literary theorists. Prerequisites: ENC 1101 and ENC 1102.

ENG 4121 History of the Film (3). Discussion, with examples, of the development of cinematic art, from its European and American beginnings to its place as a major world art form. Prerequisites: ENC 1101 and ENC 1102.

ENG 4132 Studies in the Film (3). Intensive examination of the work of a particular nation, group, or director. May also explore various film genres, e.g., documentary, horror, the Western. With change of content, may be retaken for credit. Prerequisites: ENC 1101 and ENC 1102.

ENG 4134 Women and Film (3). An examination of how women have been represented in dominant commercial films and how women filmmakers have responded to the appropriation of the image of women through alternative film narratives. Prerequisites: ENC 1101 and ENC 1102.

ENG 4135 The Rhetoric of Cinema (3). An examination of how films are constructed cinematically and narratively to involve audiences on aesthetic, intellectual and ideological levels. Prerequisites: ENC 1101 and ENC 1102.

ENG 4319 Film Humor and Comedy (3). Examines the nature of humor and comedy and its relation to film narrative. Films from all periods of cinematic history will be viewed. Prerequisites: ENC 1101 and ENC 1102.

ENG 4906 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations. By permission of the instructor. Prerequisites: ENC 1101 and ENC 1102.

ENG 4936 Honors Seminar (3). Designed specifically for honors students and other superior, highly motivated students. Seminar topics will vary from semester to semester. Prerequisites: ENC 1101 and ENC 1102.

ENG 4949 Cooperative Education in English (1-3). A student majoring in English may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

ENG 5950 Special Projects in English (1-3). Pursuit of projects involving relationship of profession to university and/or community and/or research issues in pedagogy, literature, or other areas. Prerequisites: Permission of the Graduate Director or Department Chair. Corequisite: Permission of the project supervisor.

ENL 2012 Survey of British Literature I (3). Students will read and discuss major British works written from the Anglo-Saxon period through 1750. Works will be examined within an historical context.

ENL 2022 Survey of British Literature II (3). Students will read and discuss major British works written between 1750 and the present. The works will be examined in an historical context.

ENL 3112 Development of the Novel: The 18th Century (3). A study of the development of the novel in England from Defoe and others to the Gothic novel. Prerequisites: ENC 1101 and ENC 1102.

ENL 3122 Development of the Novel: The 19th Century (3). A study of the development of the novel in England from Austen to Henry James, including Bronte, Eliot and Dickens. Prerequisites: ENC 1101 and ENC 1102.

ENL 3132 Development of the Novel: The 20th Century (3). A study of the development of the novel in England from Conrad to the present, including Lawrence, Woolf, and Joyce. Prerequisites: ENC 1101 and ENC 1102.

ENL 3261 19th Century British Women Novelists (3). Examines fiction written by women in the 19th century, including classical realist, gothic, sensation, working-class, and New Woman novels. Authors include Austen, Eliot, Bronte, and Gaskell. Prerequisites: ENC 1101 and ENC 1102.

ENL 3504 Texts and Contexts: British Literature to 1660 (3). Explores the development of British literature from its beginnings to 1660 through intensive study of selected texts; examines interactions between texts and social, cultural, or political currents. Prerequisites: ENC 1101 and ENC 1102.

ENL 3506 Texts and Contexts: British Literature Since 1660 (3). Explores the development of British literature of the last three centuries through intensive study of selected texts; examines interactions between texts and social, cultural, and political currents. Prerequisites: ENC 1101 and ENC 1102.

ENL 4161 Renaissance Drama (3). A study of non-Shakespearean drama of the English Renaissance including Jonson, Kyd, Marlowe and Webster. Prerequisites: ENC 1101 and ENC 1102.

ENL 4171 Restoration and 18th Century Drama (3). Representative plays from the period 1660-1800. May include plays by Dryden, Etherege, Wycherley, Otway, Congreve, Farquhar, Gay, Fielding, Goldsmith and Sheridan. Prerequisites: ENC 1101 and ENC 1102.

ENL 4210 Studies in Medieval Literature (3). Students will read, discuss and write about works of medieval English literature from Beowulf to Chaucer. Prerequisites: ENC 1101 and ENC 1102.

ENL 4212 Medieval Women Writers (3). The contributions of medieval women to literary history are examined. Among the writers to be studied are Margery Kemp and Marie de France. Prerequisites: ENC 1101 and ENC 1102.

ENL 4220 Renaissance: Prose and Poetry (3). A study of Renaissance poetry and prose to suggest their contributions to literacy history, including More, Wyatt, Sidney, Donne, and Bacon. Prerequisites: ENC 1101 and ENC 1102.

ENL 4223 Studies in Renaissance Literature (3). Students will read, discuss Renaissance works excluding William Shakespeare. Prerequisites: ENC 1101 and ENC 1102.

ENL 4225 Spenser (3). Study of the works of one of the most important figures of the sixteenth century including *The Faerie Queen, The Shepheards Calender* and *Amoretti.* Prerequisites: ENC 1101 and ENC 1102.

ENL 4230 Studies in Restoration and 18th-Century Literature (3). An in-depth study of the major figures in English Literature from 1660 to 1800, a period of transition between the Renaissance and modern times. Some of the writers who will be studied are Dryden, Pope, Swift, Jonson, and Fielding. Prerequisites: ENC 1101 and ENC 1102.

ENL 4241 Romanticism I (3). Focuses on the first generation of Romantic writers, including Blake, Wordsworth, Wollstonecraft, and Coleridge. Prerequisites: ENC 1101 and ENC 1102.

ENL 4242 Romanticism II (3). Focuses on the second generation of Romantic writers including Byron, Keats, Shelley, and Wollstonecraft-Shelley. Prerequisites: ENC 1101 and ENC 1102.

ENL 4243 Studies in Romanticism (3). Examination of recurring themes and motifs in Romantic literature. Prerequisites: ENC 1101 and ENC 1102.

ENL 4251 Victorian Literature (3). Study of the poetry and prose of the Victorian Age (1832-1901). Among the authors to be read are Dickens, Eliot, Carlyle, Ruskin, Arnold, Tennyson and Browning. Prerequisites: ENC 1101 and ENC 1102.

ENL 4254 Late Victorian Fiction (3). An examination of the variety of fiction written from 1880-1901, some including Wells, Zangwill, Gissing and D'Arcy. Prerequisites: ENC 1101 and ENC 1102.

ENL 4260 Studies in 19th-Century British Literature (3). Students will read, discuss, and write about literary works produced by British Romantic and Victorian writers between the Age of Wordsworth and the death of Queen Victoria. Prerequisites: ENC 1101 and ENC 1102.

ENL 4273 Studies in Modern British Literature (3). This course focuses on the literature of the 20th Century, limiting itself to British writers, but including the various genres of the modern and post modern periods. Prerequisites: ENC 1101 and ENC 1102.

ENL 4274 Yeats and His Contemporaries (3). Studies the major works of William Butler Yeats and some of his contemporaries and associates. Prerequisites: ENC 1101 and ENC 1102.

ENL 4303 Major British Writers (3). Each section will consider the lifework of an author such as Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

ENL 4311 Chaucer (3). Study of Geoffrey Chaucer's contributions to English literary history. Among the works to be examined are *The Canterbury Tales, The Parliament of Fowls* and *The Book of the Duchess.* Prerequisites: ENC 1101 and ENC 1102.

ENL 4320 Shakespeare: Histories (3). Reading and informal dramatic interpretation of representative plays. Prerequisites: ENC 1101 and ENC 1102.

ENL 4321 Shakespeare: Comedies (3). Reading and informal dramatic interpretation of representative plays. Prerequisites: ENC 1101 and ENC 1102.

ENL 4322 Shakespeare: Tragedies (3). Reading and informal dramatic interpretation of representative plays. Prerequisites: ENC 1101 and ENC 1102.

ENL 4341 Milton (3). Study of the poetic and prose contributions of John Milton including the influence of the literature of antiquity on Milton, and his influence on

subsequent poets. Prerequisites: ENC 1101 and ENC 1102.

ENL 4370 Virginia Woolf and Her Circle (3). Focusing on the works of Virginia Woolf. This course also explores how the members of the Bloomsburg Circle influenced this English novelist. Prerequisites: ENC 1101 and ENC 1102.

ENL 4412 Anglo-Jewish Literature: 19th Century to the Present (3). Fiction, essays, and poetry of Jewish writers in Britian and Ireland from 1800 to the present day. Authors may include Aguilar, Levy, Zangwill, Sinclair, Gershon, and others. Prerequisites: ENC 1101 and ENC 1102.

ENL 4503 Periods in English Literature (3). Individual sections will read a group of literary works from one specified period of English literature, such as the Medieval, Renaissance, Victorian, twentieth-century and contemporary periods. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

ENL 4930 Special Topics in English Literature (3). An examination of the different aspects of English literature. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

ENL 5220 Major British Literary Figures (3). Each section will consider the lifework of an author such as Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated. Prerequisites: ENC 1101 and ENC 1102.

ENL 5505 Periods in English Literature (3). The literature and criticism regarding one specified period of English Literature, such as Medieval, Renaissance, Victorian, Twentieth Century, and Contemporary. May be repeated with change of period. Prerequisite: Permission of the instructor. Prerequisites: ENC 1101 and ENC 1102.

FIL 3006 Introduction to Film (3). The first required course for the Film Studies Certificate Program. Introduces students to cinema as an institution as well as its role as textual narrative. Provides students with an understanding of the ways films can be analyzed and understood. Prerequisite: Must be enrolled in Certificate Program. Prerequisites: ENC 1101 and ENC 1102.

FIL 4827 Czech Film / Karlovy Vary Film Festival (3). This course will cover the Czech Film industry from its inception in the 1920's to the present day with side trips to the Karlovy Vary Film Festival in the Czech Republic and Barrondov Studios in Prague. Prerequisite: Permission of the instructor.

FIL 4940 Internship in Film Studies (1-12). Students enrolled in the Film Studies Certificate Program work at the FIU Film Society and related film activities on archival research as well as working on organizing various aspects of the FIU Miami Film Festival including the concurrent seminars. Prerequisites: Introduction to Film Studies and History of Film.

LIN 2002 Introduction to Language (3). The study of the nature of human language, its origins, and its relation to thinking behavior, and culture. An examination of the similarities and differences between spoken human languages, animal languages, and non verbal communication (including sign language); of language variation between dialects and between different historical stages of a language; and of writing systems.

LIN 2612 Black English (3). This course covers the varieties of Black English spoken in the Americas, the Caribbean, and West Africa. Focuses on the nature of these English varieties and their social uses within the community, literature, and educational system.

LIN 3013 General Linguistics (3). Study of the sounds, vocabulary, and sentence patterns of standard modern English. Other topics include meaning, social and regional dialects, language change, and style. Subsequent credit for LIN 3010 or SPN 3733 will not be granted.

LIN 3670 Grammatical Usage (3). The study of formal, traditional usage of English grammar and mechanics. Prerequisites: ENC 1101 and ENC 1102.

LIN 4122 Historical Linguistics (3). The study of linguistic methodology for determining historical and genetic relationships among languages. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 4321 General Phonology (3). The study of phonological processes in language and linguistic methodology for phonological analysis. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 4430 General Morphology and Syntax (3). The study of linguistic methodology for determining the morphological and syntactic structures of languages. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 4612 Black English (3). This course is a linguistic approach to the characteristics and functions of Black English and the current social controversies surrounding it. Prerequisite: Permission of the instructor.

LIN 4651 Gender and Language (3). Examines the evidence on a variety of questions regarding women and language, including women's speech in English and other languages, sexist language, and the relationship between language and societal attitudes towards women. Prerequisites: ENC 1101 and ENC 1102.

LIN 4680 Modern English Grammar (3). Practical study of syntax. Prerequisites: ENC 1101 and ENC 1102.

LIN 4702 Applied Linguistics (3). Linguistics in the classroom. English as a second language. Stylistics. Dialects. Prerequisite: LIN 3013.

LIN 4801 Semantics (3). The study of the semantic structure of languages. The structures underlying the meanings of words and underlying syntactic structures. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 4905 Independent Study (VAR). This course is designed for students who wish to pursue specialized topics in advanced Linguistics: phonetics, phonology, morphology, syntax, semantics, psycholinguistics, historical linguistics, or language contact. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 5211 Applied Phonetics (3). Study of sounds and suprasegmentals of English. Comparison of phonetic features of English with those of other languages. Universal constraints and markedness in learning second/foreign language pronunciation. Prerequisites: LIN 3010, LIN 3013, or LIN 5018 or the equivalent.

LIT 2010 Introduction to Fiction (3). This course offers an introduction to the basic elements of prose fiction: symbolism, plot, imagery, structure, characterization, style, point of view. Prerequisite: ENC 1101.

LIT 2030 Introduction to Poetry (3). This course offers an introduction to the basic elements of poetry: imagery, figurative language, diction, style, tone, prosody. Prerequisite: ENC 1101.

LIT 2040 Introduction to Drama (3). This course will introduce the student to the basic elements of drama and its various forms, modes, and techniques. Students will read 10-12 plays by representative English, American, and European authors. Prerequisite: ENC 1101.

LIT 2110 World Literature I (3). Surveys the literature of many cultures from the beginning of written texts through the 16th century. Usually excludes British works.

LIT 2120 World Literature II (3). This course surveys the literature of Asia and Europe from the 17th century to the present. It gives attention to the themes and world views these works embody, as well as to their artistry.

LIT 3022 The Short Novel (3). An examination of the variety of short novels that have been written in the past three centuries. Short novels from Europe and the Americas are discussed. Prerequisites: ENC 1101 and ENC 1102.

LIT 3050 Forms of Satire (3). This course will discuss the history and the different forms of satire from the Romans to the present, including the works of Horace, Juvenal, Swift, and Byron. Prerequisites: ENC 1101 and ENC 1102.

LIT 3132 Arthurian Literature (3). The legend of King Arthur is examined both in the original medieval version and in the subsequent retelling. Prerequisites: ENC 1101 and ENC 1102.

LIT 3145 Continental Novel (3). A study of the works of the major European novelists of the 19th and 20th centuries. Some of the writers whose work are read in translation are Tolstoy, Mann, and Flaubert. Prerequisites: ENC 1101 and ENC 1102.

LIT 3170 Topics in Literature and Jewish Culture (3). An examination of literature by or about Jews in a variety of national, cultural, or historical contexts. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

LIT 3190 Survey of Caribbean Literature (3). The narratives, poetry, and fiction from the beginning of the Caribbean literary tradition to the present time. Prerequisites: ENC 1101 and ENC 1102.

LIT 3200 Themes in Literature (3). Individual sections will read and discuss works relating to topics of current and enduring interest. Discussion of literature as it reflects the identities of men and women: their places in families in past, present, and future societies, in the natural world, and the cosmic order. May be repeated. Prerequisites: ENC 1101 and ENC 1102.

LIT 3331 Classics of Children's Literature (3). An examination of literary texts that form part of the imaginative experience of children, as well as part of our literary heritage. Prerequisites: ENC 1101 and ENC 1102.

LIT 3383 Women in Literature (3). Students will examine the images of women created by European and American writers. The course will also explore the roles, historical and contemporary, of women writers. Prerequisites: ENC 1101 and ENC 1102.

LIT 3384 Caribbean Women Writers (3). Examination of the writings of Caribbean women. Prerequisites: ENC 1101 and ENC 1102.

LIT 3673 Migrant Stories: Literature of the Immigration Experience (3). Fiction, essays, poetry, and drama of immigrants to England and America. Course may focus on Jewish, Caribbean, or other groups, or comparative studies. Prerequisites: ENC 1101 and ENC 1102.

LIT 3674 Literature of the Jewish Immigration Experience (3). Fiction, essays, poetry, and drama of Jewish immigrants to English-speaking countries. Course may focus on the great wave, 1880-1920, or other periods. Authors may include Antin, Cahan, Lazarus, Yezierska, Zangwill and others. Prerequisites: ENC 1101 and ENC 1102.

LIT 3702 Major Literary Modes (3). Individual sections will read and discuss the literary expression of heroic, tragic, comic, satiric, mythic, realistic, or others formalized views of human existence. May be repeated. Prerequisites: ENC 1101 and ENC 1102.

LIT 3202 Morality and Justice in Literature (3). A study of the ways literary texts articulate the values of their society. Prerequisites: ENC 1101 and ENC 1102.

LIT 3930 Special Topics (3). A course designed to give students an opportunity to pursue special studies not otherwise offered. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102.

LIT 4001 Major Literary Genres (3). Individual sections will read and discuss the form and development of novels, drama, poetry, short fiction, or such special forms as biographies, folksongs and tales, or essays, among other genres. May be repeated. Prerequisites: ENC 1101 and ENC 1102.

LIT 4041 17th Century Drama (3). A study of Western European drama of the seventeenth century including Calderon, Jonson, Tirso de Molina, Corneille, Racine, Wycherley, and Congreve. Prerequisites: ENC 1101 and ENC 1102.

LIT 4188 Regional Literature in English (3). Individual sections will discuss English writing in Ireland, Scotland, Wales, Canada, the Caribbean, India, sub-Saharan Africa, and Oceania, as well as distinctive regions in England and America. May be repeated. Prerequisites: ENC 1101 and ENC 1102.

LIT 4192 Major Caribbean Authors (3). Examines the literary achievements of major writers of the Caribbean region in the social, political, and cultural contexts of the

English, French, and Dutch Caribbean. Prerequisites: ENC 1101 and ENC 1102.

LIT 4197 Global Asian Literature (3). Focus on issues of migration and identity in literature by writers of South and East Asian descent. Prerequisites: ENC 1101 and ENC 1102.

LIT 4324 Classical Myth (3). An introduction to classical mythology through a selection of important genres from classical literature: epic, tragedy, collective poem. Works to be read in modern translation. Prerequisites: "C" or better in ENC 1101 and ENC 1102 or their equivalents.

LIT 4351 Major African Writers (3). Surveys a variety of literary texts relevant to life in post-colonial Africa. Prerequisites: ENC 1101 and ENC 1102.

LIT 4356 Literature of the Cuban Diaspora (3). A survey of literatures written by Cuban-Americans and other writers of the Cuban diaspora. Texts will be in English or English translations. Prerequisites: ENC 1101 and ENC 1102.

LIT 4364 Post Totalitarian Literature (3). Covers the major literary works which have been published in the Czech Republic and Slovakia since the fall of Communism there in 1989. Prerequisite: Permission of the instructor.

LIT 4382 Women in Post Communist Eastern Europe (3). An examination of the role of women in Eastern Europe, particularly in the former Czechoslovakia, since the fall of Communism there in 1989. Prerequisites: ENC 1101 and ENC 1102.

LIT 4403 Literature Among the Arts and Sciences (3). Individual sections will relate the study of literature to other disciplines in the humanities, fine arts, the social and natural sciences. May be repeated. Prerequisites: ENC 1101 and ENC 1102.

LIT 4420 The Psychological Novel (3). This course concentrates on novels which explore the complexities of the human psyche. Prerequisites: ENC 1101 and ENC 1102.

LIT 4930 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated. Prerequisites: ENC 1101 and ENC 1102.

LIT 4931 Special Topics in Women's Literature (3). An examination of different aspects of literature by women. May be repeated with a change of content. Prerequisites: ENC 1101 and ENC 1102.

LIT 4950 Czech Study Abroad (3). Covers the major literary movements and figures in the Czech Republic and Slovakia that have influenced the Western literary canon. The course is taught by FIU and Czech faculty. Prerequisite: Permission of the instructor.

LIT 5358 Black Literature and Literary/Cultural Theory (3). Examines 20C. black literary critical thought. Students interrogate cultural theories and literary texts from African, Caribbean, African-American, Black British and Afro-Brazilian communities. Prerequisite: Graduate standing.

LIT 5359 African Diaspora Women Writers (3). Study of black women writers from throughout the Diaspora from the early 19th century to present. Prerequisite: Graduate standing.

LIT 5934 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

Environmental Studies

Joel Heinen, *Associate Professor and Chairperson*
Mahadev Bhat, *Associate Professor*
David Bray, *Professor*
Krishnaswamy Jayachandran, *Associate Professor*
Stephen P. Leatherman, *Professor (International Hurricane Center)*
Michael McClain, *Associate Professor*
Assefa Melesse, *Assistant Professor*
Pallab Mozumder, *Assistant Professor*
Jeff Onsted, *Assistant Professor*
John Parker, *Professor*
Tom Pliske, *Instructor*
Gary Rand, *Professor*
Mike Ross, *Associate Professor*
Len Scinto, *Research Scientist (Southeast Environmental Research Center)*
Keqi Zhang, *Associate Professor and Research Scientist (International Hurricane Center)*

Affiliated Faculty
Elizabeth Anderson Olivas, *GLOWS Project*
William Anderson, *Earth Sciences*
Maria Aysa, *Sociology/Anthropology*
Bradley Bennett, *Biological Sciences*
Jerry Brown, *Sociology/Anthropology*
Yong Cai, *Chemistry*
Daniel Childers, *Biological Sciences*
Shlomi Dinar, *International Relations*
Maureen Donnelly, *Biological Sciences*
Juliet Erazo, *Sociology/Anthropology*
Jim Fourqurean, *Biological Sciences*
Jennifer (Zhaohui) Fu, *GIS-RS Center*
Evelyn Gaiser, *Biological Sciences*
Piero R. Gardinali, *Chemistry*
Jennifer Gebelein, *International Relations*
Michael Heithaus, *Biological Sciences*
Gail Hollander, *International Relations*
James Huchingson, *Religious Studies*
Rudolf Jaffe, *Chemistry*
Jeff Joens, *Chemistry*
B. M. Golam Kibria, *Statistics*
Suzanne Koptur, *Biological Sciences*
David Lee, *Biological Sciences*
Rod Neumann, *International Relations*
Steve Oberbauer, *Biological Sciences*
George Ó'Brien, *Education*
Laura Ogden, *Sociology/Anthropology*
Kevin O'Shea, *Chemistry*
Renė Price, *Earth Sciences*
Stewart Reed, *US Department of Agriculture*
James Riach, *Adjunct Professor*
Laurie Richardson, *Biological Sciences*
Michael Sukop, *Earth Sciences*
Berrin Tansel, *Civil and Environmental Engineering*
Joel Trexler, *Biological Sciences*
Bill Vickers, *Sociology/Anthropology (Emeritus)*
Carlton Waterhouse, *Law*
Kevin Whelan, *US Geological Survey*
Yan Yan Zhou, *Statistics*

This department prepares students to work in professions with an environmental focus. The Bachelor of Science degree emphasizes the chemical and ecological aspects of environmental analysis. The Bachelor of Arts degree is broader, with an emphasis on the political, social and economic aspects of environmental issues. This is an interdisciplinary program and faculty represent disciplines from chemistry to anthropology. It also relies upon affiliated faculty in other departments for some courses.

Bachelor of Science in Environmental Studies

Degree Program Hours: 120

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Lower Division Preparation
Required Courses
Common Prerequisites

BSC 1010	General Biology I	
BSC 1010L	General Biology I Lab	
BSC 1011	General Biology II	
BSC 1011L	General Biology II Lab	
CHM 1045	General Chemistry I	
CHM 1045L	General Chemistry I Lab	
CHM 1046	General Chemistry II	
CHM 1046L	General Chemistry II Lab	
GLY 1010	Introduction to Earth Science	
GLY 1010L	Introduction to Earth Science Lab	
	and	
EVR 3010	Energy Flow in Natural and Man-made Systems	
	or	
PHY 2023	Survey of General Physics	
MAC 2132	Pre-Calculus Mathematics	
	or	
MAC 1105	College Algebra	
	and	
MAC 1114	Trigonometry	

Lower or Upper Division Requirements

ECO 2023	Microeconomics	3
STA 3111	Statistics I	4
STA 3112	Statistics II	2
	or	
MAC 2311	Calculus I	4
CHM 2200	Survey of Organic Chemistry	3
CHM 2200L	Survey of Organic Chemistry Lab	1
	or	
CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry I Lab	1
	and	
CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry II Lab	1

Upper Division Program

Recommended Courses

ANT 3403	Cultural Ecology	3
ENC 3211	Report and Technical Writing	3
POS 2042	American Government	3
	or	
POS 3424	Legislative Process	3
REL 3492	Earth Ethics	3

Required Courses

ECP 3302	Introduction to Environmental Economics	3
EVR 4352	U.S. Environmental Policy	3
	or	
PUP 4203	Environmental Politics	3
EVR 4211	Water Resources	3
EVR 4211L	Water Resources Lab	1
PCB 3043	Ecology	3
PCB 3043L	Ecology Lab	1
CHM 3120	Analytical Chemistry and	3
CHM 3120L	Analytical Chemistry Lab	1
	or	
EVR 4323	Restoration Ecology and	3
EVR 4xxx	Restoration Ecology Lab	1
EVR 4920	Environmental Studies Senior Seminar	1
EVR 4905	Independent Study	2

Two of the following four courses:

EVR 4026	Ecology of Biotic Resources	3
EVR 4231	Air Resources	3
EVR 4310	Energy Resources	3
EVR 4592	Soils and Ecosystems and	3
EVR 4592L	Soils and Ecosystems Lab	1

Students are urged to develop an area of specialization of 12 to 15 credits, or a minor, in consultation with an advisor. An approved list of such courses are published prior to each semester.

Total semester hours **60**

Bachelor of Arts in Environmental Studies

Degree Program Hours: 120

Lower Division Program

Recommended Courses

PSC 1515 Energy and the Natural Environment

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Common Prerequisite

ECO 2023 Principles of Microeconomics
BSC 1011/1011L Organismal Biology and Lab
One of the following:
CHM 1032/1032L Chemistry & Society and Lab
GLY 1010/1010L Introduction to Earth Sciences and Lab

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

Recommended Courses

ANT 3403	Cultural Ecology	3
ENC 3211	Report & Technical Writing	3
POS 2042	American Government	3
	or	
POS 3424	Legislative Process	3

Required Courses: (33)

EVR 3010	Energy Flow in Natural and Man-made Systems	3
EVR 3011	Environmental Resources and Pollution	3
EVR 3011L	Environmental Resources and Pollution Lab	1
EVR 4594	Analysis of South Florida Ecosystems	3
EVR 4596	Applied Field Ecology	2
EVR 4415	Population & Environment Issues	3
EVR 4352	US Environmental Policy	3
	or	
PUP 4203	Environmental Politics	3
STA 3111	Statistics I	4
ECP 3302	Introduction to Environmental Economics	3
EVR 4411	Human Organization & Ecosystems Management	3
EVR 4905	Independent Study	2
EVR 4920	Environmental Studies Senior Seminar	1
EVR 4869L	Environmental Problem Solving Lab	2

Area of Specialization Courses: (12)

The student must take at least twelve additional credits in an approved area of specialization, such as energy and resource management, human ecology, environmental education, environmental policy, international environmental issues, geography or ecology. Six of the 12 credits must be from EVR courses. ***Note***: Minors may be substituted for an area of specialization.

Electives 16

Total semester hours **60**

Accelerated Master's of Science in Environmental Studies

Admission Requirements

- Current enrollment in the Bachelor's Degree Program in EVR at FIU.
- Completed or enrolled in at least 90 undergraduate credit hours.
- Current GPA of 3.25 or higher.
- GRE combined score of 1000 (quantitative and verbal).

General Requirements

- Completed Bachelor's Degree in EVR at FIU.
- EVR 5320 Environmental Resource Management can substitute for EVR 4023 Biotic Resources for BS majors and be taken as an elective/area of concentration by BA majors.
- BA and BS majors can take EVR 5355 Environmental Resourse Policy instead of EVR 4352 US Environmental Policy.
- Two-Three graduate electives (6-9 credits) can be counted towards areas of concentration for BA majors, or as electives or resource courses for BS majors.
- Take one section of EVR Graduate Seminar for EVR 4920 Undergraduate Senior Seminar.
- Students are expected to have 12-18 graduate course credits by the time they receive the undergraduate degree.

Minor In Environmental Studies

Required Courses

1. Four of the following approved courses, including at least two of the first four.

EVR 4026	Ecology of Biotic Resources	3
EVR 4211	Water Resources	3
EVR 4231	Air Resources	3
EVR 4310	Energy Resources	3
EVR 4401	Conservation Biology	3
EVR 4323	Restoration Ecology	3

2. One of the following courses:

EVR 4415	Population and Environment Issues	3
EVR 4321	Sustainable Resource Development	3
EVR 4352	US Environmental Policy	3
Total Credits		15

Grades of 'C' or better required for all courses. A list of additional approved environmental science courses, subject to change, is available in the Department of Environmental Studies.

Cooperative Education

Students seeking the baccalaureate degree in environmental studies may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters fully employed in industry or a governmental agency. For further information consult the Department of Cooperative Education.

Environmental Internships

Students interested in job-related academic internships should enroll in the Environmental Studies office. For details on compensation, benefits, and academic credit, contact Dr. Jack Parker.

Course Descriptions

(Course descriptions are also found in catalog sections of all participating departments. For assistance see an advisor.)

Definition of Prefixes

EVR-Environmental Studies.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

EVR 1001 Introduction to Environmental Sciences (3). A physical science course for non-science majors, emphasizing air and water pollution, water rescources, solid waste management, and energy resources. (F,S, SS)

EVR 1001L Introduction to Environment Sciences Lab (1). Laboratory analysis and field trips on topics and concepts covered in Introduction to Environmental Sciences. (F,S,SS)

EVR 1017 The Global Environment and Society (3). A broad introduction to the impact of social and economic processes on the global environment, including historical and comparative dimension. (F, S)

EVR 3010 Energy Flow in Natural and Man-made Systems (3). A course for non-science majors, examining energy use and efficiency, nuclear and renewable energy sources (including solar energy), and their environmental impacts. Prerequisites: College algebra or equivalent. (S)

EVR 3011 Environmental Resources and Pollution (3). A course for non-science majors, focusing on dynamics of pollution and environmental toxicology with emphasis on energy consumption and production, solid wastes, and air and water resources. (F,S,SS)

EVR 3011L Environmental Science: Pollution Lab (1). Laboratory and field analyses of topics and concepts covered in EVR 3011. Corequisite: EVR 3011. (F,S,SS)

EVR 3013 Ecology of South Florida (3) EVR 3013L Ecology of South Florida Lab (1). A course for non-science majors, offering an introduction to the ecology of South Florida through lectures and a series of field trips into several unique ecosystems, such as the Everglades, hardwood hammocks, and coastal regions. The course also deals with natural resource conservation, wildlife management, endangered species, and wilderness issues. (F,S,SS)

EVR 3029 The Everglades (3). An interdisciplinary examination of the Everglades system, including natural history, human history, esthetics, and politics/policy of restoration.

EVR 3402 Asian Environmental Issues (3) An overview of emerging environmental issues in Asian countries. Discussion of cultural, economic, and political systmes of the region and their influence on the environment.

EVR 3931 Topics in Environmental Studies (3). An intensive analysis of a current environmental topic. Course may be repeated with change in content.

EVR 3949/EVR 4949 Cooperative Education in Environmental Studies (1-3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluations will be required of each student. (F,S,SS)

EVR 4026 Ecology of Biotic Resources (3). The study of renewable natural resources of the earth's biomes, particularly those of tropical forests, the factors influencing their productivity, conservation, and human use. Prerequisites: BSC 1010 and BSC 1011.

EVR 4211 Water Resources (3). A seminar dealing with various aspects of water use, water pollution problems, chemistry and ecology of South Florida's waters. Ecology is recommended. Prerequisites: CHM 1045 and CHM 1046 or equivalent and general biology. (F)

EVR 4211L Water Resources Lab (1). Laboratory course on procedures currently suitable and widely accepted for physical, chemical, and biological methods in the examination of water. Prerequisites: CHM 1045 and CHM 1046 or equivalent and General Biology.

EVR 4231 Air Resources (3). Common air pollutants - their sources and methods of control. Different legislative and administrative approaches will be studied. Prerequisites: CHM 1045 and CHM 1046 or equivalent. (S)

EVR 4272 Agroecology (3). Application of ecological principles to modern farming systems to achieve goals of long term food production without depleting Earth's resources. Prereqsuisites: EVR 3013 or equivalent or permission of the instructor.

EVR 4274 Sustainable Agriculture (3). Analysis of sustainablility of modern agricultural systems under a variety of ecological economic and cultural settings. Familiarizes students with socioeconomic, urban policy,

sustainable agriculture. Prerequisites: EVR 3013 or equivalent or permission of the instructor.

EVR 4310 Energy Resources (3). Seminar dealing with power and energy production in modern society, fundamental energy relationships of industrial and domestic processes. Prerequisites: EVR 3010 or PHY 2023 or equivalent. (S)

EVR 4321 Sustainable Resource Development (3). An overview of social, economic and ecological approaches to sustainable resource development. Examines various policies for harmonizing economic growth and environmental sustainability.

EVR 4323 Restoration Ecology (3). Principles and practices of environmental restoration, recreation and enhancement. Examines ecological theory that relates to restoration through case studies from southern Florida. Prerequisites: EVR 3013 or PCB 3043 or permission of the instructor.

EVR 4351 U.S. Energy Policy (3). Policies governing the utilization of energy in the U.S. Focuses on the physical, political and social constraints that shape energy policy in this country. Prerequisites: EVR 3010 or permission of the instructor.

EVR 4352 U.S. Environmental Policy (3). Introduction to U.S. environmental policy. Reviews primary U.S. environmental legislation and the role of regulation. Prerequisites: EVR 3011 or permission of the instructor.

EVR 4401 Conservation Biology (3). Applies modern theory from ecology and population genetics to conservation issues. Topics include population viability studies, reserve design, forms of rarity, and policy issues. Prerequisites: BSC 1010 and BSC 1011.

EVR 4411 Human Organizations and Ecosystem Management (3). Environmental aspects of organizational theory and strategic management in indigenous and other local communities, non-governmental organizations, governments, and the provate sector are discussed. Prerequisite: An introductory Environmental Studies course.

EVR 4415 Population and Environment Issues (3). Examines the history, current status and projected growth of the human population in relation to environmental issues. Prerequisites: College algebra, STA 3111 (or equivalent), EVR 3011 or permission of the instructor. (F)

EVR 4592 Soils and Ecosystems (3). A review of basic soil science concepts; analyses of basic physical and chemical properties of soils, emphasizing soils in South Florida ecosystems. Prerequisites: BSC 1010 and CHM 1045, or permission of the instructor.

EVR 4592L Soils and Ecosystems Lab (1). Laboratory exercises provide soil characterization techniques used in soil science and complement the lectures by carrying out experiments illustrating soil science cincepts, soil formation, soil properties, and soil nutrients cycling. Prerequisites: CHM 1046, BSC 1011, CHM 3120 and their corresponding labs. Corequisite: EVR 4592.

EVR 4594 Analysis of South Florida Ecosystems (3). In-depth study, using case study approach of the major ecosystems of South Florida, the environmental issues facing them, and the management strategies employed to sustain their natural resources. Prerequisites: BSC 1011, BSC 1011L, EVR 3011.

EVR 4596L Applied Field Ecology (2). Introduction to basic methodologies of applied field ecological research; builds ability to identify major plant and animal species and community assemblages in South Florida. Prerequisites: BSC 1011, BSC 1011L, EVR 3011.

EVR 4869L Environmental Problem Solving Lab (2). Provides first-hand experience in solving environmental problems (problem definition, study design, data collection, analysis & reporting). Includes use of case study, social survey, computer modeling and GIS techniques. Prerequisities: STA 3111, ECO 2023, EVR 3010, and EVR 3011, or permission of the instructor.

EVR 4905 Research and Independent Study (Var). Student develops and carries out research project with guidance from professor. Permission of the instructor.

EVR 4920 Environmental Studies Senior Seminar (1). Series of talks by FIU and external experts addressing both development of professional skills and current environmental topics. Students prepare short presentations. For seniors only.

EVR 4934 Special Topics (1-3). Advanced undergraduate level course dealing with selected environmental topics. Course may be repeated with change in content.

EVR 5005 Environmental Science and Sustainability (3). Introductory environmental science course for graduate students in environmental studies and other disciplines. Emphasizes physical sciences and applications to environmental issues.

EVR 5061 South Florida Ecology: Field Studies (3). Introduction to ecology of South Florida. Series of field trips to unique ecosystems (Everglades, hard-wood hammocks, coastal regions). No science background required. Intended for teachers. Not intended for Environmental Studies graduate students.

EVR 5065 Ecology of Costa Rican Rainforest (3). Intensive study of Central American tropical forest ecosystems conducted for two weeks in Costa Rica in sites ranging from lowland to high mountains. Primarily for teachers. Prerequisites: Graduate standing or permission of the instructor. (SS)

EVR 5066 Ecology of the Amazon Flooded Forest (3). Study of the ecology of the flooded forest with emphasis on the relationships between plants and animals and the annual flooding cycle. The course includes a two-week field study at river camp in Peru. Prerequisites: Graduate standing or permission of the instructor. (SS)

EVR 5215 Water Resources Assessment (3). Elements of hydrological cycle, hydrological processes and water resources assessment with emphasis on surface and groundwater water quantity and quality evaluation is central to the course.

EVR 5236 Air Pollution Dynamics (3). A course designed to give an understanding of the fates of atmospheric pollutants. Scavenging processes in the atmosphere; radiation, residence times, chemical reactions, global transport process, point source dispersion and modeling calculations. Prerequisites: EVS 3360 or EVR 4231.

EVR 5313 Renewable Energy Sources (3). An analysis of renewable energy sources and energy efficiency including wind, biomass, geothermal, hydroelectric, solid waste, solar heating, solar cooling, and solar electricity. Prerequisite: Permission of the instructor.

EVR 5315 Energy Resources and Systems Analysis (3). Detailed analysis of energy flows in natural and man-made systems. Energy systems analysis. Energy use patterns. Conventional and alternate sources of energy.

EVR 5320 Environmental Resource Management (3). The scientific and philosophical basis for the management of renewable and non-renewable energy, mineral, air, water, and biotic resources. Prerequisites: Graduate standing or permission of the instructor. (F)

EVR 5332 Integrated Solutions for Water in Environment and Development (3). Examines the theory and practice of integrated water resources management, focusing on science, policy, and socioeconomic themes evaluated through case studies from different regions of the world. Emphasis given to environmental elements.

EVR 5350 International Organizations & Environmental Politics (3). The role of international organizations in environmental politics and the process of their formation and change in response to environmental problems. Prerequsites: Graduate standing or permission of the instructor.

EVR 5353 International Energy Policy (3). Focuses on the distribution of global energy resources and related issues. A comparison of the energy policies of various countries serves as the basis for exploring alternative energy policy approaches. Prerequisites: EVR 5355 or permission of the instructor.

EVR 5355 Environmental Resource Policy (3). A survey of international and national environmental policy and the legal, economic, and administrative dimensions of international accords and selected U.S. law. Prerequisites: EVR 5320 or permission of the instructor. (S)

EVR 5410 The Human Population and Earth's Ecosystems (3). Explores the impact of the human population of Earth's ecosystems. Reviews current population data at global, regional, and local scales. Includes study of specific South Florida carrying capacity issues.

EVR 5907 Research and Independent Study (VAR). The student works with a professor on a research project. Variable credit.

EVR 5935 Special Topics (VAR). A graduate-level course dealing with selected environmental topics. The content will not necessarily be the same each time the course is offered.

EVR 5936 Topics in Environmental Studies (3). An analysis of several current environmental topics. Recommended for primary and secondary school teachers.

GIS 5050 Environmental GIS (3). Concepts of GIS, database design and management, advanced spatial analysis and modeling, uncertainty, error, and sensitivity in GIS. Focus on GIS project design, execution and presentation using AroGIS. Prerequisite: Permission of the instructor.

History

Mark D. Szuchman, *Professor and Chairperson*
Noble David Cook, *Professor*
Elizabeth Cooper, *Assistant Professor*
Alexandra Cornelius-Diallo, *Assistant Professor*
Gwyn Davies, *Assistant Professor*
Rebecca Friedman, *Associate Professor*
Veronique Helenon, *Assistant Professor*
Sherry Johnson, *Associate Professor and Director of Graduate Studies*
Howard Kaminsky, *Professor Emeritus*
Lara Kriegel, *Associate Professor*
Alex Lichtenstein, *Associate Professor*
Felice Lifshitz, *Professor*
Kenneth Lipartito, *Professor*
Aurora Morcillo, *Associate Professor*
Laura Nenzi, *Assistant Professor*
Akin Ogundiran, *Associate Professor*
Joseph F. Patrouch, *Associate Professor*
Brian Peterson, *Associate Professor*
Joyce S. Peterson, *Associate Professor and Associate Dean*
Bianca Premo, *Associate Professor*
Darden Asbury Pyron, *Professor*
Howard B. Rock, *Professor*
Victor M. Uribe, *Associate Professor*
Chantalle Verna, *Assistant Professor*
Kirsten Wood, *Associate Professor*

Bachelor of Arts in History

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisites

Complete two of the following:

AMH 2041	Origins of American Civilization
AMH 2042	Modern American Civilization
AMH 2010	American History 1607-1850
AMH 2020	American History 1850-Present
EUH 2011	Western Civilization: Early European Civilization
EUH 2021	Western Civilization: Medieval to Modern Europe
EUH 2030	Western Civilization: Europe in the Modern Era
LAH 2020	Latin American Civilization
WOH 2001	World Civilization

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60)

One course, at the 3000 or 4000 level in each of the following areas, (indicated in brackets at the end of each course description in the University Catalog).

Pre-Modern History of any Region [1]	3
Modern Europe [2]	3
The United States [3]	3
Modern Latin America, Africa, or Asia [4]	3
HIS 4935 Senior Seminar	3
Any five additional History courses (at the 3000 or 4000 level)	15
Electives (at the 3000 or 4000 level) in any Department at FIU, to make up the prescribed number of credits required for graduation. (Ten credits maximum at the 1000 or 2000 level for those entering as juniors or seniors).	30

Bachelor of Arts in History with Honors

To earn the B.A. in History with Honors, a student must maintain a 3.5 GPA in History courses. Instead of "any five 3000 or 4000 level History classes" in the category of "additional History classes" as required for the B.A. major, candidates for the B.A. in History with Honors will complete the following Honors Track courses:

HIS 4052	Honors Historical Methods	3
HIS 4973	Honor Thesis in History	3

Students interested in the Honors Track should learn the languages necessary for research in their chosen field(s) as early in their academic careers as possible, and should be prepared to utilize their linguistic skills whenever possible in all their coursework at FIU. Completion of the Honors Track is recognized on students' transcript upon graduation.

Minor in History

Five general History courses (at the 3000 or 4000 level) 15 semester hours.

Teacher Certification

Students with a baccalaureate degree in History will be temporarily certified until they meet other requirements. One of these requirements is to complete specific courses required by the College of Education. Students who complete the Education Minor will fulfill this requirements; therefore, we encourage students to minor in Education (courses: EDF 3515; EDP 3004; EDG 3321; ESE 4343; SSE 4383) while they complete the requirements for our major.

Students interested in teacher certification should contact the College of Education at (305) 348-2721.

Course Descriptions

Definition of Prefixes

AFH-African History; AMH-American History; ASH-Asian History; EUH- European History; HIS-General; LAH-Latin American History; WOH-World History

AFH 2000 African Civilizations (3). A survey of major historical themes and civilizations of Africa. Written work meets state composition requirement (6,000 words).

AFH 4100 History of Africa I (3). African history from the origins of humanity to the nineteenth century. Topics include the rise of centralized societies, the Atlantic slave trade, early Christianity and Islam. [4]

AFH 4200 History of Africa II (3). African history from the nineteenth century to the present. Topics include European colonialism, the struggle for independence, and contemporary challenges. [4]

AFH 4342 History of West Africa (3). This course surveys the developments in the western region of Africa from the origins of agricultural societies about 5000 B.C. to the present. [4]

AFH 4405 History of East Africa (3). Surveys the developments in the eastern region of the continent from the origins of humanity in the Rift Valley to the 1994 genocide in Rwanda. [4]

AFH 4450 History of South Africa (3). Examines the development of the South African nation in terms of its African and European heritage from the early Khoisan societies through apartheid and Mandela's election. [4]

AFH 5905 Readings in African History (3). An examination of historiographical traditions within African history. Topics will vary; with a change in theme, the course may be repeated. Prerequisite: Graduate standing.

AFH 5935 Topics in African History (3). An examination of specific themes in African history. Topics will vary. With a change in theme, the course may be repeated. Prerequisite: Graduate standing.

AMH 2010 American History, 1607-1850 (3). A survey of American history from the founding of Virginia to the antebellum era. Analysis of colonial America, the American Revolution, the Constitution, and the growth of a new republic. [3]

AMH 2020 American History, 1850 to the Present (3). A survey of American history from before the Civil War to our own day. Analysis of the Civil War, Reconstruction, the Gilded Age, the move toward imperialism, and the problems of the 20th Century. [3]

AMH 2041 Origins of American Civilization (3). Examines the origins of the United States from the first European settlements through the early republic. Topics include society, culture, politics and economics. Written work meets the state composition requirement (6,000 words).

AMH 2042 Modern American Civilization (3). Examines the development of the United States from the early republic to the present. Topics include society, culture, politics and economics. Written work meets the state composition requirement (6,000 words).

AMH 3012 American History, 1600-1763 (3). The American social colonial experience from the earliest settlements at Jamestown and Plymouth to the eve of the American Revolution. Particular emphasis will be on religion, social structure, politics, and slavery. [3]

AMH 3141 American History, 1790-1860 (3). An exploration of early national U.S. history, with particular attention to party politics, religious pluralism, sentimental culture, reform movements, and economic development. [3]

AMH 3270 Contemporary U.S. History (3). An examination of the major trends, forces and personalities that have shaped the recent American past. [3]

AMH 3317 America and the Movies (3). An examination of the social and cultural history of 20th century America through its movies. [3]

AMH 3331 American Intellectual History I (3). This course will trace the origins and development of the main ideas and intellectual themes of Anglo-American history during the colonial and early national period, 1600-1815. It will stress social ideas and popular concepts, and relate them to the formation of dominant American national characteristics. [3]

AMH 3332 American Intellectual History II (3). This course will emphasize the full flowering of individualistic liberalism in 19th Century American thought, and trace the implications of and reaction against this tradition down to the present. [3]

AMH 3444 The Great American West (3). The course will explore the meaning of the West for both the settlers and modern Americans. Using song, film, novels, art, etc., the course will examine the lives and values of the Indians, mountain men, farmers, ranchers, and cowboys. [3]

AMH 3560 History of Women in the United States (3). The changing dimensions of women's lives from the colonial era of U.S. history to the present. The course will examine the changing economic, social, and political position of women as well as the development of feminist movement and organizations. [3]

AMH 4130 The American Revolution (3). An exploration of the nature of the Revolution from the beginning of the conflict in 1763 through the ratification of the Constitution in 1789. Discussion of the political and economic differences between the colonists and England, along with the meaning the war had to the different classes of Americans. [3]

AMH 4140 Age of Jefferson (3). A survey of Jeffersonian America (1790-1828) with emphasis on the origins of American politics, the emerging American economy, the rise of American nationalism, and Jeffersonian mind. [3]

AMH 4160 The Age of Jackson (3). A survey of Jacksonian America (1828-1850) with emphasis on the growth of political parties, the rise of American industry, the emergence of labor, slavery, and early reform movements. [3]

AMH 4170 Civil War and Reconstruction (3). The rise and sources of militant sectionalism in the United States, the war itself, and the restoration of the nation. [3]

AMH 4230 The Roaring Twenties and the Great Depression (3). A political, economic, social, and intellectual history of the 1920s and the great depression of the 1930s. [3]

AMH 4251 The Great Depression (3). This course deals with the experience of the American people in the Great Depression of the 1930s. It examines causes of the depression, government response, and effectiveness of response, as well as looking at the actual daily experience of people during the Depression and the changes it made in U.S. society. [3]

AMH 4292 Origins of Modern America, 1877-1920 (3). U.S. history between the Civil War and World War I, origins of modern American social, cultural, and private life. Impact of industrialization, urbanization, immigration and war on American society, culture between 1877 and 1920. [3]

AMH 4373 Entrepreneurs in U.S. (3). Focusing on entrepreneurism, course covers American ideals (capitalism, individualism, upward mobility, the free market, independence) in historical context. Examines why these ideals have changed, colonial era to the present. [3]

AMH 4375 Technology and American Society (3). The history and impact of technology and innovation on American society, politics, and culture from the 18th century to the present. [3]

AMH 4400 Southern History (3). An examination of the main themes and social forces that have shaped the southern experience and the southern intellectual tradition in a distinctive way within the larger historical reality of colonial Anglo-America and the United States. The period covered is from initial exploration and settlement of Sir Walter Raleigh and John Smith to the present. [3]

AMH 4421 Florida Under Five Flags: Florida History from Precontact to 1877 (3). Overview of Florida from the fifteenth through nineteenth centuries. Examines the changing economic, social, and political position of the peninsula and provides an understanding of how Florida has been shaped by its geography and colonial experience. [3]

AMH 4500 United States Labor History (3). Transformations in the nature of work, the experience of the working class, and the development of the American labor movement, with special attention to issues of race, region, and gender. [3]

AMH 4540 US Military History from the Colonial Era to the Present (3). Examines the military heritage of the United States from the Colonial Wars until the present, focusing on the operational and strategic levels of warfare. [3]

AMH 4544 The United States and the Vietnam War (3). Emphasizes the cultural differences between the U.S. and Vietnam, and examines why and how the United States got involved in Vietnam and ended up fighting a major war in Southeast Asia. [3]

AMH 4561 Early American Women's History (3). Women in colonial and nineteenth-century America, including some or all of the following; colonialism, Native Americans, witch-craft, migration, slavery, industrialization, Civil War, lynching.[3]

AMH 4562 Modern American Women's History (3). History of women in the U.S. since the Civil War. Topics covered include reconstruction, workforce participation, suffrage, feminist theory, warfare, motherhood, women's liberation. [3]

AMH 4570 African-American History (3). Black society in the United States and its relation to the political, economic, social, and cultural history of America. [3]

AMH 4571 African American History from the 17th to the late 19th Centuries (3). Examines the experience of African Americans from the colonial period to the Reconstruction era. Topics include: slave cultures; development of free black communities; civil war. [3]

AMH 4573 African American History from the Late 19th Century to the Present (3). Examines the experience of African Americans from the emergence of Jim Crow to the Black Power Movement. Topics include the Great Migration, Marcus Garvey, the Civil Rights and Black Power Movements. [3]

AMH 4914 South Florida History: Research (3). A history of South Florida from the Tequestas and Calusas to the present. The main focus is student research using primary sources including manuscript censuses, microfilmed newspapers and archives. [3]

AMH 4930 Topics in U.S. History (3). Selected topics or themes in U.S. history. The themes will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). [3]

AMH 5905 Readings in American History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in American history. Subjects will vary according to professors. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

AMH 5935 Topics in American History (3). An examination of specific themes or topics in American history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule.) Prerequisite: Graduate standing.

ASH 3440 History of Japan (3). Survey of the history of Japan from the origins of Japanese civilization in the early centuries BCE to the contemporary era, with an in-depth focus on selected topics such as the transitions from classical to medieval and early modern to modern periods.

ASH 3442 History of Modern Japan (3). Examination of Japan's transition to modernity and relevant historiographical debates on the topic.

ASH 3450 Urban History of Japan (3). Introduction to the urban history of Asia. Emphasis on Tokyo. Topics include construction of space, power, identity, and historical developments as reflected in architecture.

ASH 4300 East Asian Civilization and Culture (3). The historical developments of Chinese and Japanese civilizations and cultures from the earliest beginnings and classical period through the middle ages and eighteenth century as well as the modern era. [4]

ASH 4384 History of Women in Asia (3). Examines the history of women in Asia in relation to religious ideologies, philosophies, family roles, work roles, imperialism and nationalism, global feminism, and women's bodies. [4]

ASH 4404 History of China (3). Examines Chinese politics, ideas, economics and society from the 19th Century to the present. Impact of European imperialism, decline and fall of the Qing dynasty, Nationalist and Communist Revolutions, women, modernization, and democracy movement are covered. [4]

ASH 4453 History of Travel in Japan (3). History of Japan's cultural, social, political and religious history through the examination of travel and travel literature.

ASH 5446 Pre-Modern Japan (3). Survey of key historiographical interpretations on the history of early modern Japan (1600-1868), including 'classics' and recent works that introduce new avenues of research.

ASH 5905 Readings in Asian History (3). Graduate reading seminar dedicated to issues of gender, identity, and authority in China, Japan, and other regions of Asia.

ASH 5930 Topics in Asian History (3). An examination of topics in Asian history such as gender, modernization, transnational encounters, or the intersection of culture and politics. Comparative approach emphasized.

EUH 2011 Western Civilization: Early European Civilization (3). Examines the earliest development of European Civilization; European thought and behavior in pre-classical, classical and post-classical periods. Written work meets state composition requirement (6,000 words).

EUH 2021 Western Civilization: Medieval to Modern Europe (3). Examines key developments of European civilization from medieval to early modern times. Written work meets state composition requirement (6,000 words).

EUH 2030 Western Civilization: Europe in the Modern Era (3). Examines key developments in the origins and nature of contemporary Europe, including social, political and industrial changes from the early modern period to the present. Written work meets the state composition requirement (6,000 words).

EUH 3120 Europe in the Central Middle Ages (3). Europe from the ninth to the twelfth centuries, analyzing the disintegration of the empire of Charlemagne and its replacement by nascent national states and by the supra-national papal monarchy. [1]

EUH 3121 Europe in the Earlier Middle Ages (3). The disintegration of the Roman imperial unity and its replacement by Latin, Greek and Arabic cultural spheres, with particular emphasis on the Latin West. [1]

EUH 3122 Europe in the Later Middle Ages (3). The thirteenth throughout the fifteenth centuries as the prelude to the revolutionary transformations of early modernity e.g., secularization, industrialization, expansionism, scientism and democratization [1].

EUH 3142 Renaissance and Reformation (3). A study of the development of humanism in Italy and Protestantism in Germany, and their impact on Europe in the Fourteenth, Fifteenth, and Sixteenth centuries. [2]

EUH 3181 Medieval Culture (3). Selected topics in the cultural history of Europe from 500 to 1500: epic and knightly romance; Christian theology and spirituality; scholastic philosophy; Romanesque and Gothic arts; the rise of literature in the vernacular; the culture of the layman; and the contribution of women. [1]

EUH 3205 Nineteenth-Century Europe 1815-1914 (3). This course will deal with the political, diplomatic, economic, social, and cultural history of Europe from 1815 until 1914. Special attention will be given to the Industrial Revolution. [2]

EUH 3245 European History, 1914-1945 (3). Europe in the era of the two World Wars, with special emphasis on communism and fascism. [2]

EUH 3282 European History, 1945 to Present (3). Europe since the Second World War examined in its political, diplomatic, social, economic, and cultural aspects. [2]

EUH 3400 Greek History (3). The origins of the Greek polis in Mycenaean times, its domination of civilization in the first millennium B.C., its transformation under Alexander and his successors. The political history, culture, values, and social dynamics of Greek civilization. [1]

EUH 3411 Ancient Rome (3). The formation of the Roman republic, its rise to domination in the Mediterranean, its transformation into the Roman Empire, and its final disintegration. The political history, culture, values, social dynamics, and enduring force of the Roman civilization. [1]

EUH 3570 Russian History (3). An overview of Russian History from the time of tribal Slavs until today. The course will focus especially on the changing conditions of the Russian peasantry and on the unique development of the Russian state. [2]

EUH 3576 The Russian Revolution and the Soviet Union (3). This course deals with Russia since 1917 and focuses particularly on the theory and practice of communism in the Soviet Union. The impact of communism on the lives of the people, whether in politics, economics, or culture, will be examined. [2]

EUH 3611 European Cultural and Intellectual History (3). This course will examine the development of the key ideas in European political and social theory, in conceptions of the natural world and of the individual which have come to dominate European culture in the last four hundred years. [2]

EUH 4025 Saints, Relics and Miracles in Medieval Europe (3). Synthetic view of medieval Europe through the lens of saints veneration. Topics include saints as patrons, miracles and magic pilgrimage, bureaucratic canonization, gender and mysticism. [1]

EUH 4033 Nazism and the Holocaust (3). The history of the Third Reich and the Holocaust. The development of the german State and the emancipation of the Jews; the rise of racial antisemitism; Hitler and the emergence of Nazism as a political force; the 'Final Solution' and European and American responses. [2]

EUH 4123 Medieval Holy War (3). Analysis of the cross-cultural phenomenon of holy warfare or the sanctification and glorification of militarism in the Christian crusader movement and the Islamic *jihad.* [1]

EUH 4187 Topics in Medieval European History (3). Selected topics or themes in Medieval history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). [1]

EUH 4200 Seventeenth Century Europe (3). A thematically-arranged study of social, political and artistic developments, in the 17th century. Concentrates on the 30 years war, absolutism, rural society, scientific revolution, and Baroque art. [2]

EUH 4286 Topics in European History (3). An examination of selected topics or themes in early modern and modern European history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). [2]

EUH 4300 Byzantine History (3). A survey of the political, cultural, and social history of the Byzantine Empire from 284 to 1461, including Byzantium's contributions to Christian theology, Roman law, and the culture of the Renaissance and eastern Europe. [1]

EUH 4312 History of Spain (3). A survey of Spanish history from the Reconquista through the Civil War, with particular emphasis on the Golden Age. [2]

EUH 4401 History of Fifth Century Greece (3). An examination of the culture and history of Greece in the age of Herodotus and Thucydides, of Pericles, Aeschylus, Euripides, and Aristophanes. [1]

EUH 4408 The Age of Alexander The Great, 400-280 BC (3). Covers the life and times of Alexander the Great, 356-323 BC. Includes an analysis of the generations immediately before and after Alexander, to place him in context. Extensive use is made of limited primary sources for Alexander's era. [1]

EUH 4414 Roman Provinces (3). Assessing the impact of the Roman Empire on its indigenous inhabitants, the transformation processes employed to create a homogenized Roman identity and the degree to which assimilation proved effective.

EUH 4432 Between Empire & Renaissance: Italy in the "Middle Age" (3). The Italian peninsula between the age of Roman imperial dominance and the rebirth of Italian centrality during the "Renaissance." Greek, Germanic, Muslim and Norman intervention and the political role of the Roman Church. [1]

EUH 4440 The Making of Medieval France (3). A survey of French history as a case study in state building from the Celtic period and the incorporation of the region into the Roman empire as Gaul to the reign of Philip Augustus. [1]

EUH 4451 History of Modern France, 1815-1968 (3). Survey of French history form the restoration through the student revolt of May 1968, with attention to questions of change and continuity in the French response to modernity. [2]

EUH 4453 The French Revolution and Napoleon (3). A study of French and European history from 1798 to 1815, with an emphasis on the political development of the Revolution, social groups within France, and the rise of Napoleon. [2]

EUH 4462 History of Modern Germany, 1815-1945 (3). A survey of German history from the unification movement through WWII. Topics discussed include Hitler's relation to the German past, liberalism, modernization. [2]

EUH 4501 England to 1688 (3). A survey of ancient, medieval and early modern English history with attention to continental comparisons and contrasts. [1]

EUH 4520 England in the 18th Century (3). Exploring one of the greatest eras in English history, this course will cover the growth of the British empire, crown and Parliament, the industrial revolution, social problems and English culture. [2]

EUH 4521 Victorian Britain: Culture, Society and Empire (3). Examines key cultural, political, and social developments in nineteenth-century Britian and its empire while introducing students to landmark scholarship on gender, class, and race in the Victorian era.

EUH 4542 Modern Britain, 1688-Present (3). A political, social, and cultural examination of Britain's rise and fall as a global power. Topics include revolution, urbanization, industry, class society, empire, world wars, and decolonization. [2]

EUH 4563 The Habsburg Dynasty (3). History of Habsburg Dynasty from its medieval origins until the early 1700's. Members of this family ruled over large portions of Europe as well as over territories around the world, including Florida. [1,2]

EUH 4600 Key Texts in Western Culture to the Renaissance (3). The history of Western Civilization from its beginning to the Renaissance, studied through particularly significant texts. [1]

EUH 4602 The Enlightenment (3). This course deals with the French Enlightenment of the Eighteenth Century, particularly with Voltaire, Diderot, and Rousseau. Impact of the Scientific and English Revolutions on Enlightenment. [2]

EUH 4606 Key Texts in Western Culture from the Reformation to the 20th Century (3). The history of Western Civilization from the Reformation to the present, studied through particularly significant texts. [2]

EUH 4610 Women and Gender in Europe, 1750-Present (3). Examines how women contributed to the development of modern European history. Also explores how ideas about gender and sexuality shaped, and were influenced by, the nature of politics, economics and culture. [2]

EUH 4613 Social History of Early Modern Europe (3). Examines European history 1300-1800 through discussion of various topics including: lords, peasants, demography, family life, education, witchcraft. [2]

EUH 4660 Modern Europe, 1789-Present (3). European history from the French Revolution until today, with special attention to liberalism, nationalism, socialism, communism, and fascism. The course will touch on the main points of the national histories of the various European states, from Britain to Russia. [2]

EUH 4953 Czech History and Culture – Study Abroad (3). Covers the major historical forces and movements which have shaped this area of the world, especially in the last 150 years. The course is taught by FIU and Czech faculty. Prerequisite: Permission of the instructor. [2]

EUH 5905 Readings in European History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in European history. Subjects will vary according to professors. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

EUH 5935 Topics in European History (3). An examination of specific themes or topics in European history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). Prerequisite: Graduate standing.

HIS 3151 Archaeological Methods and Perspectives (3). Introduction to the history of archaeology, to archaeological methodology and theory, and to current issues in public archaeology, including cultural resource management.

HIS 3308 War and Society (3). An examination of the ways societies have organized themselves for external

and internal wars. The course will also explore the changing conduct of war, the image of the warrior, and the ways in which military institutions have crystalized class structures.

HIS 3314 Women and Gender in Medieval Eurasia (3). Discusses the establishment of patriarchal structures in ancient Mesopotamia, and resistance to those structures in Islamic Central and West Asia, Christian Europe, and Confucian/Buddhist East Asia. [1]

HIS 3330 Great Archaeological Discoveries (3). Survey of important archaeological discoveries around the world and their implications for understanding the last 5,000 years of human history.

HIS 4052 Honors Historical Methods (3). Instruction in research skills, principles and methods of critical historical analysis and historiography. Includes exposure to variety of historical approaches. Prerequisite: Permission of the instructor.

HIS 4154 Archaeological Field Work (3-6). Archeological field work and hands-on instruction in modern excavation practices. Post-finds analysis in the laboratory. Prerequisite: Permission of the instructor.

HIS 4400 The Formation of Urban Society (3). A comparative study of the cultural, social, political and economic development of cities. Topics include: the ancient city, industrialization, immigration, poverty and urban planning.

HIS 4454 The History of Racial Theory in Europe and the United States (3). The literature produced by natural and social scientists on the question of race, the shifting notions of racial identity and difference, superiority and inferiority, and the political and social consequences of these ideas. [2,3]

HIS 4908 Independent Study (VAR). Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor.

HIS 4930 Special Topics (3). An examination of specific themes or topics in history. The theme will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule).

HIS 4935 Senior Seminar (3). A seminar to be taken by all history majors, to provide experience in research, writing, and critical analysis.

HIS 4973 Honors Thesis in History (3). Research and write an honors thesis under direction of faculty member. Prerequisite: Permission of the instructor.

HIS 5067 Public History (3). The theory, methods and practice of history in non-academic settings, including museums, national parks, governmental agencies, corporations, and community organizations. Prerequisite: Graduate Standing.

HIS 5084 Museum History (3). Examines key texts in the history of museums in modern Europe and the United States. Among issues it addresses are nationalism, imperialism, memory, and identity politics. Prerequisite: Graduate Standing.

HIS 5289 Comparative History (3). A study of specific topics in history that cut across regional, national, and chronological lines. The topics will change from semester to semester, and with a change in content, the course may be repeated. (The topic of the course will be announced in the yearly schedule). Prerequisite: Graduate standing.

HIS 5347 History of Social Thought (3). Examines the evolution of major currents in Western social thought from the nineteenth century to the present, emphasizing how these ideas have influenced historians' work.

HIS 5908 Independent Study (VAR). Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor. Prerequisite: Graduate standing.

HIS 5910 Advanced Research Seminar (3). Small group sessions will analyze particular subject areas in history, with the consent of the instructor. Prerequisite: Graduate standing.

HIS 5930 Special Topics (3). An examination of specific themes or topics in history. The theme will vary from semester to semester, and with a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). Prerequisite: Graduate standing.

HIS 5940 Supervised Teaching (1-3). The students will work under the close supervision of a regular member of the faculty in a mentorial fashion. The supervision will cover various aspects of course design and delivery in history. Prerequisite: Graduate standing.

LAH 2020 Latin American Civilization (3). An analysis of the underlying themes that have shaped the history of the Ibero-American areas from the time of initial contact to the present. Emphasis is given to cultural exchange and transformation. Written work meets state composition requirement (6,000 words).

LAH 3132 The Formation of Latin America (3). An examination of Latin America in the colonial period, focusing on conquest, Indian relations, the landed estate, urban functions, labor, and socioeconomic organization from the 15th through the 18th Centuries. [4]

LAH 3200 Latin America: The National Period (3). Trends and major problems of Latin American nations from independence to the present. [4]

LAH 3450 Central America (3). An overview of Central American history from colonial times to the present, with emphasis on the period after the mid-Eighteenth Century. All five modern nations are dealt with in some detail, while the thematic focus is on social and economic history. [4]

LAH 3718 History of U.S.-Latin American Relations (3). Surveys the history of the social, economic and political relations between the U.S. and the countries of Central America, South America, and the Caribbean basin during the last two centuries. [4]

LAH 3740 Comparative History of Latin American Rebellions and Revolutions (3). Identifies the historical forces driving revolutionary change in Latin America. Causes of revolutions, directions of the revolutionary movements, and their political agendas. [4]

LAH 4433 Modern Mexico (3). An examination of the central themes of nation-building in Mexico from 1810 to

the present: race, land, political authority, regionalism, dictatorship, and the Mexican Revolution. [4]

LAH 4471 Colonial Caribbean in Comparative Perspective (3). An overview of the Caribbean region from the fifteenth through the nineteenth centuries. Examines the changing economic, social, and political position of the area and provides an understanding of how the colonies have been shaped by their experiences. [4]

LAH 4482 Cuba: 18th—20th Centuries (3). The socio-economic and political setting in Cuba since the mid-Eighteenth Century. [4]

LAH 4511 Argentina: 18th—20th Centuries (3). A survey of the social and political formation of the Argentine nation, starting with the colonial legacy and ending with the contemporary political situation. [4]

LAH 4600 History of Brazil (3). Origins of Portuguese rule and African slavery; crisis of colonialism and transition to independence; coffee, abolition, and the Brazilian Empire; Republican Brazil and the Revolution of 1930; postwar developments. [4]

LAH 4720 Family and Land in Latin American History (3). Evolution of land tenure in Latin American societies and its connections with the strategies and interests of elite families. [4]

LAH 4721 History of Women in Latin America (3). Examines women's roles in indigenous societies, in the colonial period, during independence, and in the 19th century. Also explores women and slavery, populism and popular culture, and the rise of the feminist movement. [4]

LAH 4734 Latin American History Through Film (3). Introduces students to central events in the history of colonial and modern Latin America through the use of films. Looks at central historical figures and focuses on critical issues of the period. [4]

LAH 4750 Law and Society in Latin American History (3). Social history of law and legal struggles by colonial Indians, black slaves, peasants, women and contemporary "colonos" (settlers). Its emphasis is on the prevalence of legal confrontations throughout Latin American history. [4]

LAH 4932 Topics in Latin American History (3). Selected topics or themes in Latin American history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). [4]

LAH 5905 Readings in Latin American History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in Latin American history. Subjects will vary according to professors. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

LAH 5935 Topics in Latin American History (3). An examination of specific themes or topics in Latin American history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). Prerequisite: Graduate standing.

WOH 2001 World Civilization (3). Comparative histories of major world civilizations, including China, India, the Moslem Middle East, Africa, Latin America, and the West. Emphasis on cultural characteristics and interactions. Written work meets state composition requirement (6,000 words).

WOH 3281 Jewish History to 1750 (3). Jewish history from the First Exile in 586 BCE to 1750. The development of Jewish institutions in exile and as a nation, the development of the Talmud and the medieval experience.

WOH 3282 Modern Jewish History (3). A survey of the major currents in modern Jewish History. The reaction to the Enlightenment, the American experience, the growth of the Eastern European Shtetl, the Holocaust and the birth of the State of Israel.

WOH 4223 History of the Global Economy (3). Global economy 1500-present. Industrialization, trade, finance, and labor in Europe, US, Asia, Latin America. Comparative economic systems.

WOH 4230 The African Diaspora and the Atlantic Slave Trade (3). Topics include slavery in Africa and the Diaspora, as well as Diasporic religion, kinship, gender, sexuality, language, resistance and creolization. [4]

WOH 4301 The Modern African Diaspora (3). Topics include slave resisstance, Black Nationalism, socialism, anti-colonialism, gender, religion, art and literature, race and medicine, and afrocentrism. [4]

WOH 5236 The Transatlantic Slave Trade and the Making of African Diaspora, 1441-1807 (3). Topics include slavery and economy in Africa and the Diaspora, as well as Diasporic religion, kinship, gender, sexuality, language, oral tradition, resistance, and creolization. [4]

WOH 5237 The African Diaspora Since the End of the Slave Trade (3). Primary emphasis on history of social and intellectual movements. Topics include slave resistance, black nationalism, socialism, anti-colonialism, gender, art and literature, and afrocentrism. [4]

WOH 5935 Topics in World History (3). An examination of specific themes in World History. Topics will vary with a change in theme, the course may be repeated. Prerequisites: Permission of the instructor or graduate standing.

Humanities

Bruce A. Harvey, *Associate Professor, English, Director of Humanities*
Marian Demos, *Associate Professor, Modern Languages (Classics)*
Rebecca Friedman, *Associate Professor, History*
Daniel R. Guernsey, *Associate Professor, Art History*
Joyce Peterson, *Associate Professor, History, and Associate Dean of the College*
Kenneth F. Rogerson, *Professor, Philosophy*
Richard P. Sugg, *Professor, English*
Barbara Watts, *Associate Professor, Art History*

Bachelor of Arts in Humanities

Degree Program Hours: 120

The Humanities program offers a structured interdisciplinary curriculum designed to confront the student with key values and issues concerning human beings and society, extending beyond the scope and methodology of the natural and social sciences.

The program focuses on the insights, critiques, and aesthetic visions of philosophers, poets, playwrights, fiction writers, artists, film makers, and religious thinkers. Their cultural works have become the reservoir of humankind's most outstanding intellectual and artistic achievements. The program seeks to develop in-depth understanding of exemplary and famous artists and thinkers within their historical contexts; its also charts the emergence of mass media, popular culture, and urban culture. In acknowledgement of a global past and a shared global future, the program also pays attention to non-Western and American ethnic-minority cultures, in order to expose the student to different values and world views.

For those students interested in Classical Greek and Roman culture, the program provides a well-structured Classical track and a sequence of Greek and Latin courses.

Either as a B.A. Major or as a Minor, an Humanities course of study prepares students for later success in post-graduate programs in the liberal arts, law school, business, journalism, and public affairs, by honing verbal and written communication skills, analytical insight, and ethical awareness of the issues and problems of an increasingly complex global society.

Lower Division Preparation

To qualify for admission to the program students must meet all the lower division requirements, including CLAST and the completion of 60 semester hours, and be otherwise acceptable to the program.

Common Prerequisites

No specific courses are required.

Recommended Courses

Students are encouraged to take two or more of the following courses, which satisfy University core requirements, either before they begin taking their Humanities major courses or concurrently with those courses:

HUM 3306	History of Ideas
HUM 3214	Ancient Classical Culture and Civilization
ARH 2050	Art History I
	or
ARH 2051	Art History II

Upper Division Program (60)

A. Core: The following 4 courses are required for all Humanities majors (12 hours):

HUM 4431	The Greek World[1]
HUM 3231	Renaissance and Baroque
HUM 4920	Humanities Seminar[1]

and one of the following courses:

HUM 3246	The Enlightenment and the Modern World
HUM 3252	20th Century Culture and Civilization
HUM 3254	Contemporary World

Note: For students who take more than four core courses, the surplus can be counted under B or C below.

B. Three additional Humanities courses (9 hours):

HUM 3214	Ancient Classical Culture and Civilization
HUM 3304	Values in Conflict
HUM 3306	History of ideas
HUM 3325	Women, Culture and History
HUM 3432	The Roman World
HUM 3435	The Medieval World
HUM 2512	Art and Society[1]
HUM 3514	Art in Context
HUM 3545	Art and Literature
HUM 3562	Politics of the Arts[1]
HUM 3591	Art & Technology[1]
HUM 3930	Female/Male: Women's Studies Seminar
HUM 3939	Special Topics[1]
HUM 4392	Human Concerns[1]
HUM 4491	Cultural Heritages and Changes[1]
HUM 4543	Literature and Philosophy
HUM 4544	Literature and the Humanities
HUM 4555	Symbols and Myths
HUM 4561	Ethics and the Humanities
HUM 4580	Film Humanities
HUM 4906	Independent Study[1]

C. Three additional courses either from the list of HUM courses offered by the Program; or from the following Humanities disciplines: History, Philosophy, Religion, Art History, and Literature; or from other disciplines related to the Humanities if approved by the Humanities faculty student advisor. (9 hours)

D. General Electives: These courses may be outside of Humanities and its contributing disciplines. Courses should be taken in consultation with the Humanities advisor. (30 hours)

[1]With a change in theme and the instructor's permission, these courses may be repeated for credit.

Classics Track

A. Humanities Core Curriculum (12 hours)

B. Three additional courses dealing with Classical (Greek or Roman) culture and civilization. These courses may be either HUM courses or courses from contributing Humanities disciplines. (9 hours)

C. Three interdisciplinary HUM courses. (9 hours)

D. Language requirement: The language requirement is the same as for other FIU students; however, students in the Classics Track are strongly encouraged to satisfy the requirement with a Classical language.

E. General Electives. These courses may be outside of Humanities and its contributing disciplines. Courses should

be taken in consultation with the Humanities advisor. (30 hours)

Minor in the Humanities (15 hours)

A. One of the following (3 hours):

HUM 3214	Ancient Classical Culture and Civilization
	or
HUM 4431	The Greek World
	or
HUM 3432	The Roman World

and

B. Four additional HUM courses (including classical languages) (12 hours)

Course Descriptions

Definition of Prefixes

HUM-Humanities; GRE/GRW-Greek; LAT-Latin

GRE 1130 Classical Greek I (5). Emphasis on grammar, and on basic reading and writing skills.

GRE 1131 Classical Greek II (5). Emphasis on grammar, and on basic reading and writing skills. Prerequisite: GRE 1130.

GRE 2200 Intermediate Classical Greek (3). Emphasis on grammar, and on acquiring intermediate reading and writing skills. Prerequisite: GRE 1131.

GRW 3210 Greek Prose Writers (3). Translation into English and grammatical analysis of selected texts of Classical prose writers, such as Plato, Aristotle, Xenophon, Thucydides and Plutarch. Prerequisites: Reading knowledge of Classical Greek or GRE 2200.

GRW 3390 Readings in Greek Literature (3). Translation into English and grammatical analysis of selected texts of ancient Greek authors, prose and verse, such as Plato, Plutarch and Homer. The topics will change from semester and with a change in content, the course may be repeated. Prerequisites: GRE 1131 or reading knowledge of Classical Greek.

HUM 2512 Art and Society (3). A study of the relationship between art and culture in different periods, including patronage, the role of the artist, and the relationship between art and economic, political, religious, and ideological forces.

HUM 2701 Study Abroad in the Humanities (1-9). Integrated study of painting, architecture, music, drama, dance, and philosophy. Attitudes and beliefs of societies as they are reflected in the arts.

HUM 3214 Ancient Classical Culture and Civilization (3). Explores the culture of the ancient Greek and Latin worlds from an interdisciplinary perspective and studies the varied conceptions of the individual, society, and nature.

HUM 3231 Renaissance and Baroque Cultures (3). An in-depth examination of the cultural monuments of the Renaissance, Reformation, Counter-Reformation, and Baroque periods and of the forces that helped shape them.

HUM 3246 The Enlightenment and the Modern World (3). Explores the culture of the Enlightenment and the modern world from an interdisciplinary perspective and studies the varying conceptions of the individual, society, and nature.

HUM 3252 20th Century Culture and Civilization (3). The 20th century through the Vietnam war, as represented by the period's creative and intellectual works in literature, art, history and philosophy - discussed from an interdisciplinary perspective.

HUM 3254 The Contemporary World (3). Significant creative and intellectual works, ideas and movements of the last twenty years surveyed and discussed from an interdisciplinary perspective.

HUM 3304 Values in Conflict (3). Philosophical, ethical, and religious foundations of Western civilization and significant challenges its value system has received from critical and revolutionary thought.

HUM 3306 History of Ideas (3). The historical development of fundamental concepts through an interdisciplinary cultural approach. Nature, freedom, beauty, virtue, alienation, and relativism are traced in literature, art, and philosophy including the social context of developing ideas.

HUM 3325 Women, Culture and History (3). Examines women's lives within various world cultures and historical periods. Examines the cultural meaning attributed to women, women's lived experiences and historical contributions.

HUM 3432 The Roman World (3). An in-depth examination of selected cultural monuments and events of the Roman Republic and Empire and of the forces that helped shape them.

HUM 3435 The Medieval World (3). An in-depth examination of cultural monuments of the European Middle Ages and of the forces that helped shape them.

HUM 3514 Art in Context (3). Examines topics concerning art in the context of the history and culture of a particular society (May be repeated with a change in content.) Prerequisite: Junior standing.

HUM 3545 Art and Literature (3). A study of a period in the history of visual art as it relates to literature. Topics may include art and mythology, sacred and profane love in art and literature, painting and poetry, and the novel and art.

HUM 3562 Politics and the Arts (3). Explores arts and patronage in relation to the politics and ideologies of a given place and time. Topics vary. (May be repeated with a change in content.)

HUM 3591 Art and Technology (3). Explores the relationship between innovations in technology and artistic expression. Course theme is media based, and varies from semester to semester. (May be repeated with a change in content.)

HUM 3930 Female/Male: Women's Studies Seminar (3). This course interprets and contrasts the status of women and men in context with women's inequality. Diverse topics include the workplace, family, education, image, violence and ethnicity.

HUM 3939 Special Topics (3). An examination of specific topics in the humanities. The topics may vary from

semester to semester. (May be repeated with a change in content.)

HUM 3949 Cooperative Education in Humanities (3). A student majoring in Humanities may spend one or two semesters fully employed in industry in a capacity relating to the major.

HUM 4248 The World of Dante and Giotto (3). Examines the culture of medieval Italy, with emphasis on the writings of Dante Alighieri and the paintings of Giotto di Bondone. Prerequisites: HUM 2512 or ARH 2050 or ARH 2051, or permission of the instructor.

HUM 4392 Human Concerns (3). Examines concerns important to the human condition, including varying conceptions of human nature, the relation of the individual to society, the quest for identity, the search for meaning through literature, art and social institutions. (May be repeated with a change in content.)

HUM 4431 The Greek World (3). An in-depth examination of selected cultural monuments and events of the Greek World in the Classical and Hellenistic periods and of the forces that helped shape them. (May be repeated with change in content.)

HUM 4491 Cultural Heritages and Cultural Changes (3). Focuses upon various cultures and their development, including such topics as: cultural evolution and revolution, ethnicity and pluralism, and subcultures and countercultures. (May be repeated with a change in content.)

HUM 4543 Literature and Philosophy (3). The interpretation of literature and philosophy from an interdisciplinary perspective. In addition to philosophical novels, poetry, and drama, the course may examine the philosophical scrutiny of literature.

HUM 4544 Literature and the Humanities (3). Literature from an interdisciplinary perspective. Literary texts are related to the cultural context of their production and the ideas surrounding them.

HUM 4555 Symbols and Myths (3). An in-depth examination of mythology and symbolic language within the cultural and psychodynamic forces that inform them. This course gives special emphasis to Classical myths.

HUM 4561 Ethics and the Humanities (3). Human values studied from an interdisciplinary perspective. Selected ethical issues are examined using philosophical, historical, or literary texts. The relationship between ethical values and cultural achievements is explored.

HUM 4580 Film Humanities (3). Studies the significance of film in Western culture: the language, semiotics and technique of films with the aid of appropriate cinematographical material.

HUM 4906 Independent Study (1-3). Directed independent research. Requires prior approval by instructor. (May be repeated with a change in content.)

HUM 4920 Humanities Seminar (3). Addresses a specific topic in-depth from a variety of perspectives. Topics will be announced in advance. (May be repeated with a change in content.)

HUM 5935 Graduate Seminar in Humanities (3). A specialized thematic topic offered at the Graduate level. Topics will vary and will be announced in advanced. (May be repeated with a change in content.)

LAT 1130 Latin I (5). Emphasis on grammar and on acquiring basic reading and writing skills.

LAT 1131 Latin II (5). Emphasis on grammar and on acquiring reading and writing skills. Prerequisite: LAT 1130.

LAT 2200 Intermediate Latin (3). Emphasis on grammar and on acquiring basic reading and writing skills. Prerequisite: LAT 1131.

LAT 3202 Latin Prose Writers (3). Translation into English and grammatical analysis of selected texts of classical prose writers such as Cicero, Caesar and Livy. Prerequisites: Reading knowledge of Latin or LAT 2200.

LAT 3203 Readings in Latin Literature (3). Translation into English and grammatical analysis of selected texts of Latin authors, prose and verse, such as Cicero, Livy, Virgil and Horace. (May be repeated with a change in content.) Prerequisites: LAT 1131 or reading knowledge of Latin.

International Relations

John F. Clark, *Associate Professor and Chairperson*
Majid Al-Khalili, *Lecturer*
Clair Apodaca, *Associate Professor*
Kenneth Boodhoo, *Emeritus Professor*
Thomas A. Breslin, *Professor*
Ralph S. Clem, *Professor*
Peter R. Craumer, *Associate Professor*
Francois Debrix, *Associate Professor*
Shlomi Dinar, *Assistant Professor*
Damián J. Fernández, *Professor*
Jennifer Gebelein, *Assistant Professor*
Harry D. Gould, *Assistant Professor*
Gail Hollander, *Associate Professor*
Vanessa Hudson, *Visiting Assistant Professor*
Antonio Jorge, *Professor*
Paul Kowert, *Associate Professor*
Charles G. MacDonald, *Professor*
Felix Martin, *Associate Professor*
Mohiaddin Mesbahi, *Associate Professor*
Rod Neumann, *Professor*
Jeffery A. Onsted, *Assistant Professor*
Nicholas G. Onuf, *Emeritus Professor*
Hans Petersmann, *Visiting Professor*
Patricia L. Price, *Associate Professor*
Elisabeth Prugl, *Associate Professor*
Benjamin Smith, *Assistant Professor*
Chantalle F. Verna, *Assistant Professor*
Gregory B. Wolfe, *Emeritus Professor*
Jin Zeng, *Assistant Professor*

The Department of International Relations offers a BA degree in International Relations, a BA degree in Geography, and a Combined BA in International Relations/MA in International Studies.

Bachelor of Arts in International Relations

Degree Program Hours: 120

Lower Division Preparation

Students may begin taking courses in the Department at any time and may declare their intention to major in International Relations after completing 24 semester hours of the University core curriculum requirements. To qualify for full admission to the program, FIU students must have met all lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Common Prerequisites

None

Required for the degree:

INR 2001	Introduction to International Relations

Upper Division Program

International Relations majors must complete a minimum 30 semester hours of course work in the department with a grade of 'C' or better.

Core Requirement: (3)

GEA 2000	World Regional Geography

Group I Courses for the Major: (9)
In addition to the Core Requirement, INR majors must take at least one course (3 sem. hrs.) from each of the following divisions in Group I:
(1)International Law/International Organizations (IL)
(2)Foreign Policy/Security Studies (FP)
(3)International Political Economy/Economic Geography (IPE)

Group II Courses for the Major: (12)
INR majors must also take at least four courses (12 sem. hrs.) in Group II, including at least one from each of the following divisions:
(1) Area Studies (AS)
(2) Geography (G)
(3) Issues and Problems in International Relations (IP)
Note: INR 4943 Internship in International Affairs, or GEO 4940 Internship in Geography, can count as the fourth Group II course as long as the student has completed one course from each of the three divisions, above.

Exit Requirements: (6)

INR 3013	Development of International Relations Thought
INR 4603	Theories of International Relations

Electives

Students are encouraged to double major in geography or to take courses or pursue a minor in geography or in other related fields such as economics, modern languages, history, political science, sociology/anthropology, or business. We recommend that students take introductory courses in economics and gain fluency in a foreign language. Students may also consider appropriate academic certificates such as those in Latin American and Caribbean Studies, Asian Studies, African-New World Studies, and European Studies.

Combined BA in International Relations/MA in International Studies

The combined BA/MA degree program allows highly qualified undergraduate students to pursue an accelerated MA degree in International Studies. Students accepted into this program will be able to complete the MA degree as much as one year sooner that would otherwise be possible. Students accepted into the International Relations Honors Track are particularly encouraged to apply for this program.

To be accepted into the combined BA/MA degree program, students must submit an MA program application by March 15 in their junior year (to apply, students must already have completed 75 credits in their undergraduate degree program). A complete application requires:

- Current enrollment in BA program in International Relations at FIU
- Completion of 75 credits of undergraduate coursework
- GRE score of 1000
- GPA of 3.5
- Two letters of recommendation
- Statement of purpose discussing research interests

All components of the application must be complete by the March 15 application date. Students should consult the graduate catalog and the International Relations Department website for a more comprehensive discussion of admission requirements. If the application is approved,

students will be admitted into the combined BA/MA degree program once they have successfully completed 90 credits in their undergraduate degree program. Students in the combined BA/MA degree program must apply for their undergraduate degree as soon as possible after having satisfied the degree requirements.

The program gives students the opportunity to take up to 9 credits of graduate coursework in their senior year that will count towards both the BA and the MA. Successful completion of the BA/MA program will therefore require a total of 147 credit hours. Students will take three 5000-level graduate courses in their senior year and follow the regular MA curriculum after they earn their BA degree. A typical course of study is as follows:

Undergraduate Junior Year: apply to the program (March 15 deadline)

Undergraduate Senior Year
Fall Semester – take 12 credits, including one 5000-level course
Spring Semester – take 12 credits, including two 5000-level courses

Graduate Program
Summer – take 3 graduate credits (5000-level or higher)
Fall – take 9 graduate credits (5000-level or higher)
Spring – take 9 graduate credits (5000-level or higher)
Summer – take 6 graduate credits (thesis or comps preparation)

Students in the combined BA/MA program in International Studies must complete all other requirements for the MA degree in International Studies (please consult the graduate catalog and the Department's online graduate handbook.

Minor in International Relations

A student majoring in another academic discipline earns a Minor in International Relations by successfully completing approved course work of 15 semester hours in the Department of International Relations with a grade of 'C' or better. This program must include:

INR 2001	Introduction to International Relations
GEA 2000	World Regional Geography

At least one course from Group I
At least one course from Group II
Any other course offered by the Department of International Relations

Honors Track in International Relations

Students with a least 18 credits in International Relations and Geography and a 3.5 GPA in their major courses are eligible to apply for the Honors Track. Those accepted may then take INR 4937 (Honors Seminar I) and INR 4970 (Honors Thesis) to fulfill the requirements for the Track. Completion of the Honors Track is recognized on students' transcripts upon graduation.

Bachelor of Arts in Geography

Degree Program Hours: 120

Upper Division Program

In addition to two entry-level common prerequisites, students must complete a total of 30 credit-hours, 27 of them at the upper division level. These include three core courses, three courses in regional studies, and four in a topical specialization track. An outline of the specific course requirements for the geography major follows:

Common Prerequisites: (6)
Two 2000 level GEO courses

Core Requirements: (9)

GEA 2000	World Regional Geography
GEO 3001	Geography of Global Change
GEO 3176	Applications of GIS

Regional Studies: (9)

Choose at least two upper division courses with a GEA prefix. Other credits may be earned by taking INR courses with an "AS" designation.

Topical Specialization: (12)

Choose one of the following tracks. A minimum of 12 credit-hours must be taken to complete the chosen track, 9 of which must have a GEO or GEA prefix.

Track 1: Development and Cultural Change
Any GEO course with a (T1) designation.
Any INR course with an (IP or IPE) designation.

Track 2: The Geography of International Relations
Any three GEO courses with a (T2) designation.
Plus:

INR 3013	Development of International Relations Thought

Track 3: Environmental Applications
Any three GEO courses with a (T3) Designation.
Plus:
Any upper division EVR course.
Or:
Choose one of the following:

GEO 3510	Earth Resources
GLY 3034	Natural Diasters
GLY 3039	Environmental Geology

Note: Internship in Geography, GEO 4940, or Internship in International Relations, INR 4943, can count as a T1, T2, or T3 requirement.

Minor in Geography

A student majoring in another academic discipline earns a Minor in Geography by successfully completing approved course work of 15 semester hours with a grade of 'C' or better as described below:

GEO 2000	Introduction to Geography
GEA 2000	World Regional Geography

In addition to the above required courses, students must take a minimum of three other Geography courses, at least one with a GEA prefix, and at least one with a GEO prefix.

Course Descriptions

Definition of Prefixes

GEA-Geography-Regional (Area); GEO-Geography-Systemic; INR-International Relations;
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

GEA 2000 World Regional Geography (3). A systematic survey of the major regions and countries of the world, with regard to their physical, cultural, and political characteristics. Emphasis upon climate, natural resources, economic development, and population patterns. (F,S,SS)

GEA 3210 Geography of North America (G) (3). Geography of the countries of North America with emphasis on physical aspects, human migration and development, population, economic resources and culture.

GEA 3320 Population and Geography of the Caribbean (G) (3). Physical, cultural and political geography of the Caribbean; emphasis on population patterns, growth and ethnicity. (S)

GEA 3400 Population and Geography of Latin America (G) (3). Introduction to the physical, cultural, and political geography of Latin America. Emphasis on population patterns and problems of population growth, systems of land use and tenure, economic development, natural resources, and agriculture. (F,S)

GEA 3500 Population and Geography of Europe (G) (3). Introduction to the physical, cultural, and political geography of Europe emphasizing the evolution of the states and the geographical factors facilitating the integration movement. (S)

GEA 3554 Geography of Russia and Central Eurasia (G) (3). A geographical analysis of the countries of the former Soviet Union. Emphasis on resources, population, union urbanization, and economic development. (S)

GEA 3600 Population and Geography of Africa (G) (3). Examines the structure of pre-conquest society and covers colonialism's effects on contemporary food production and ecological management. An overview of development issues in Africa. (F)

GEA 3635 Population and Geography of the Middle East (G) (3). Introduction to the physical, cultural, and political geography of the Middle East. Emphasis on population patterns, natural resources, and economic development. (F)

GEA 3705 Geography of Central Asia and the Caucasus (G) (3). Geography of the countries of the former Soviet Union in the Caucasus and the Central Asian regions. Emphasis on natural resources, environmental problems, ethnicity and population change, urbanization, and economic development. (F,S,SS)

GEA 4202 Geography of the Borderlands (G) (3). Examines the role of borders in human society. Comparative analysis of specific border zones. In-depth exploration of one borderland: society, culture, economics, and political processes.

GEA 4905 Independent Study (1-6). Directed independent research in regional geography. Requires prior approval by instructor. (F,S,SS)

GEA 4930 Topics in Geography (G) (3). Varies according to the instructor and semester. May be repeated with departmental permission.

GEO 2000 Introduction to Geography (3). Leading concepts of human and environmental geography. Physical, cultural, economic and political factors in the spatial patterns of natural and human systems. (F,S)

GEO 2040 Mapping in Geography (3). Introduction to the history of catography and map production. Descriptions of map errors, maps as science and as art. Also more technical map creation with aerial photography and satellite images.

GEO 3001 Geography of Global Change (G) (3). Explores the geography of change in contemporary world economy, politics, culture, and environment. Mapping and spatial analysis aid in understanding global change and effects on specific places.

GEO 3421 Cultural Geography (G) (T1, T2) (3). The study of spatial variations among cultural groups and the special functioning of society. Focuses on describing and analyzing geographic differences in language, religion, economy, and government. (S)

GEO 3471 Political Geography (G) (T2) (3). Emphasis is given to the organization of space, particularly as it pertains to the nation-state. Factors instrumental to determining the viability of states are included stressing unifying-repelling forces. (S)

GEO 3502 Economic Geography (G, IPE) (T1,T2) (3). Explores spatial facets of the economy at the international level, including trade, development, manufacturing, multi-national corporations and technology. (S)

GEO 3602 Urban Geography (G) (T1) (3). The study of spatial organization within and among urban settlements. Analysis of both the empirical and theoretical aspects of urbanism are covered, with an emphasis on current urban problems. (S)

GEO 4354 Geography of the Global Food System (G) (T2,T3) (3). Analyzes the spatial organization of the global food system and its importance to world economic development. Explores issues of food security, trade, and environment.

GEO 4476 Political Ecology (G) (T1,T3) (3). Principles of human geography and political economy structure analyses and explanation of ecological problems. Emphasizes spatial aspects of society and environment interactions.

GEO 4477 Critical Geopolitics (G) (T2) (3). Explains to students new methods of critical geopolitical analysis and how they impact human political affairs across landscapes and territories. Allows students to develop analytical work and research in the field.

GEO 4905 Independent Study (1-6). Directed independent research in systematic geography. Requires prior approval by instructor. (F,S,SS)

GEO 4940 Internship in Geography (G) (T1,T2,T3) (1-6). Introduces Geography majors and minors to real-world experience through internship in local, national, and overseas government, NGO, and private sector enterprises.

GEO 5136 Remote Sensing (3). Satellite image and aerial photo interpretation and analysis fundamentals.

GEO 5177 Topics in Geographic Information Systems (3). Geographic concepts are studied in a computer-based mapping environment. Both social and physical data are used. Students receive a background in spatial analysis and basic cartography.

GEO 5415 Topics in Social Geography (G, IP) (3). Topics discussed include geographic aspects of population and ethnicity, with emphasis on sources and analysis of data and pertinent concepts. Prerequisites: GEA 2000 or permission of the instructor. (S)

GEO 5557 Globalization (3). Examines the transformation of the world economy and of global finance, the changing significance of sovereignty and territoriality, the effects of space-time compression on everyday life, and associated shifts in culture and identity.

GIS 3176 Applications of Geographic Information Systems (G) (3). Introduction to geographic spatial analysis using a variety of data.

GIS 5620 Surveillance, Intelligence, and International Relations (3). This seminar focuses on the role of advanced technology in obtaining information via orbital or land-based surveillance systems on issues of international relations such as warfare and globalization. Prerequisites: Graduate standing or permission of the instructor.

INR 2001 Introduction to International Relations (3). Introduction to the interactions among international actors: states, international organizations, and transnational groups. Concepts such as power and national interest will be introduced. (F,S,SS)

INR 3013 Development of International Relations Thought (3). The nature and characteristics of international relations from antiquity to the end of the First World War. Examination of the religio-philosophical, socio-economic and political ideas and systems associated with them. Study of select historical occurrences and patterns of social change and their interaction with the dynamics of international relations. Prerequisite: INR 2001.

INR 3030 Diplomacy (FP) (3). Covers theory and practice of diplomacy, including negotiation, conflict resolution, ethics and human rights, and economic diplomacy. Examines both diplomatic history and contemporary foreign policy problems.

INR 3043 Population and Society (G, IP) (3). Introduction to basic demographic concepts: fertility, mortality, migration, urbanization. Discussion of economic development, modernization and population change. Examination of sources of data and background information including censuses and vital statistics, and their utilization. (F)

INR 3045 The Global Challenge of Refugees and Migrants (IP) (3). Examines political and economic challenges stemming from the international movement of refugees and economic migrants. Emphasizes the role of state power, organizations and law in structuring responses.

INR 3061 Conflict, Security and Peace Studies in INR (FP) (3). Introduces students to basic theoretical arguments and empirical cases on security, peace and strategic studies. Examines the evolution of conflict resolution and post-conflict reconstruction.

INR 3081 Contemporary International Problems (IP) (3). Examines selected world and regional issues and problems. Topics vary according to the instructor. (F,S,SS)

INR 3106 International Relations of the United States (FP) (3). Introduces major issues of U.S. foreign policy. Topics are examined from multiple perspectives, including those of individual leaders, domestic interest groups, and the national interest. (F,S)

INR 3214 International Relations of Europe (AS) (3). An examination of the international, social, economic, and political life of contemporary Europe. Emphasis given to international organizations and the trend toward economic and political integration. (F,S)

INR 3223 Japan and the United States (AS,FP) (3). Examines the international relationship between two of the most powerful and economically significant states of this and the next century and the international problems they must face together.

INR 3224 International Relations of East Asia (AS) (3). Examines strategic and economic aspects of international relations among China, Japan, North Korea, and other nations of East Asia.

INR 3226 International Relations of Central Asia and the Caucasus (AS) (3). Analysis of international relations of Central Asia and the Caucasus, domestic and external sources of region's foreign policy and its geopolitical, geoeconomic and geocultural dynamics.

INR 3227 International Relations of South Asia (AS) (3). Examines international relations of Indian subcontinent. Looks at basic patterns of international, political, economic, cultural, and ideological relations of the region.

INR 3232 International Relations of China (AS) (3). An examination of the development of China's international relations in the 20th century. Special attention to the development of institutional mechanisms for diplomacy and to problems of integrating domestic and foreign policies. (S)

INR 3243 International Relations of Latin America (AS) (3). An examination of international, social, economic, and political life of Latin America. Emphasis given to the role of international organizations; regionalism; and the trend toward economic integration. (F,S,SS)

INR 3246 International Relations of the Caribbean (AS) (3). An examination of the international social, economic, and political life of the Caribbean. Includes English, Spanish, and French speaking regions. (F,S)

INR 3252 International Relations of North Africa (AS) (3). An examination of the social, political and economic structure of North Africa and the manner in which its historical development has conditioned international relations within and external to the region. (F)

INR 3253 International Relations of Sub-Saharan Africa (AS) (3). An analysis of the international relations of sub-Saharan African nations with one another and with other, non-African nations. Examines the effects of such international relationships on development, politics, and social change in sub-Saharan Africa.

INR 3262 International Relations of Russia and the Former USSR (AS) (3). Analysis of the international relations of countries of the former USSR, covering the Soviet and post-Soviet eras. Emphasis on Russia, Muslim Central Asia, and their impact on the international system. (F)

INR 3274 International Relations of the Middle East (AS) (3). An examination of the international social,

economic, and political life of the Middle East. The role of oil in the region will receive special attention. (F,S)

INR 3303 Foreign Policymaking (FP) (3). Introduces and explores models of foreign policymaking, applied to international strategic, economic, and social problems.

INR 3331 European Foreign and Security Policy (FP) (3). Familiarizes students with European foreign policies and security institutions in the context of European integration. Addresses areas of security and defense, trade and development cooperation.

INR 3403 International Law (IL) (3). Introduction to the legal concepts, framework, and institutions which play a role in international relations theory and practice. (F,S,SS)

INR 3502 International Organizations (IL) (3). The study of international political, economic, and social organizations and their impact upon the relations between nations. Emphasis on the constitution, voting, membership, security and operation of such organizations, and the settling of international disputes through these bodies. (F,S,SS)

INR 3703 International Political Economy (IPE) (3). Explores the important concepts, theories, and contending approaches used in the study of international political economy.

INR 3705 Geography of Central Asia and the Caucasus (AS,G) (3). Geography of the countries of the former Soviet Union in the Caucasus and the Central Asian regions. Emphasis on natural resources, environmental problems, ethnicity and population change, urbanization, and economic development.

INR 3949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend several semesters fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Cooperative Education Program and major department. (F,S,SS)

INR 4024 Ethnicity and Nationality: World Patterns and Problems (IP) (3). A systematic survey of multi-national states and their current political and socio-economic situations. The concept of ethnicity and its correlates. Conceptual bases of ethnic integration, assimilation, and stratification. The macro and micro-scales; country, region, city, neighborhood. The consequences of modernization and economic development. (F)

INR 4031 The Media and International Relations (IP) (3). Explores the impact of print and visual media on the practice of International Relations. Examines how the media and their technologies determine the outcome of International Relations.

INR 4032 Asia and Latin America in World Affairs (AS) (3). Examines the linkages between Asia and Latin America, their roles in world affaris, the domestic sources of foreign policies of states in the two regions, as well as the international issues confronting the two areas.

INR 4054 World Resources and World Order (IP) (3). An examination of the impact of the quantity and distribution of the world's resources upon the relations between nations. The availability of mineral resources and food, in particular, will receive attention; and an assessment will be made of the international economic and political implications deriving there from. (F,S)

INR 4077 International Relations & Women's Human Rights (IP) (3). Identifies and explains global human rights issues that affect women's lives. Examines existing international legal instruments that allow women to have basic rights recognized. Fulfills SACS oral competency requirement.

INR 4082 Islam in International Relations (IP) (3). Analysis of the role of Islam in shaping the dynamics of contemporary international relations. Emphasis on ideological, cultural and political role, Islamic movements and states and relations with the West. (S)

INR 4085 Women and Men in International Relations (IP) (3). Surveys the differential roles of women and men in international relations, gender based poltics at a global scale, and constructions of proper womanhood and manhood in transnational politcs.

INR 4091 Ethical Problems in International Relations (IP) (3). Explores several approaches to the international ethical problems posed by intervention, human rights abuses, nuclear threats, global economic privation and other international phenomena. Prerequisite: INR 2001.

INR 4247 Caribbean Regional Relations (AS) (3). An examination of the forces and institutions which contribute to or inhibit cooperation and integration in the Caribbean. Prerequisites: INR 3246, CPO 3323, ECS 4432. (S)

INR 4283 International Relations, Development, and the Third World (AS, IP) (3). An examination of the impact of the theory and practice of development and the relations between nations, with particular emphasis on the Third World. Attention given to the role of international political and economic organizations in the development process. (F,S)

INR 4335 Strategic Studies and National Security (FP) (3). The role of force in international relations is examined. The use and control of force in theory and practice is analyzed. Special attention is paid to contemporary national security issues. (F,S)

INR 4404 International Protection of Human Rights (IL, IP) (3). Development of the concern of the international community with the rights of individuals and groups and the institutional mechanisms which have been set up for their protection. (F)

INR 4408 Topics in International Law (IL, IP) (3). An intensive examination of selected topics in international law and relations among nations. Topics will vary according to the interests of the instructor and the students. (F)

INR 4411 International Humanitarian Law (IP) (3). Provides students with conceptual, legal, and critical understanding of major issues of International Humanitarian Law. Allows students to develop analytical work and research in this field. Prerequisite: INR 3403.

INR 4436 International Negotiation (FP, IP) (3). Introduces students to the main components of international negotiations analysis. Surveys the various

stages of a negotiation process and examines key. Applies theory to practice by considering and analyzing a set case of studies.

INR 4603 Theories of International Relations (3). Analysis and conceptualization of the forces and conditions which influence relations among nations. Emphasis is on the provision of an analytical basis for the study of international relations. Prerequisites: INR 2001 or permission of the instructor. (F,S,SS)

INR 4905 Independent Study (VAR). Directed independent research. Requires prior approval by instructor. (F,S,SS)

INR 4931 Topics in International Relations (3). Varies according to the instructor. (F,S,SS)

INR 4937 Honors Seminar 1: Advanced Writings in International Relations (3). Instruction on the steps in research and writings including formulation of the research question, research design, argumentation and bibliography assembly on a theme in International Relations. Prerequisite: INR 2001. (F)

INR 4943 Internship in International Affairs (IP) (1-6). Work 10-15 hours a week with a consulate, business, bank, private voluntary organization, governmental agency or consulting firm for professional experience in international affairs. Prerequisite: INR 2001. (F,S,SS)

INR 4949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Cooperative Education Program and major department. (F,S,SS)

INR 4970 Honors Thesis (3). Under the direction of an appropriate faculty member, students research and write an honors thesis. Prerequisite: INR 4937. (F,S,SS)

INR 5007 Seminar in International Politics (3). An advanced graduate course designed to give students a specialized knowledge of the classics in international politics. The course traces the development of international politics from Thucydides to the present.

INR 5012 Global Issues and Human Rights (IP) (3). Identification, articulation and clarification of global issues that affect Human Rights and the global strategies used to challenge and overcome obstacles. Prerequisite: Graduate standing.

INR 5036 Politics of Globalization (IP) (3). Intensive examination of state and global institutions that have shaped process of economic globalization. Topics include impact on sovereignty, human rights, labor and agenda-setting of large and small nation-states.

INR 5062 War, Peace and Conflict Resoultion in INR (FP) (3). Explores the genesis of interstate conflict, the evolution of crisis, the outbreak of war and peace. Analyzes conflict resolution and post-conflict reconstruction processes in international relations.

INR 5072 The Media and International Relations (IP) (3). Explores impact of visual and print media on practice and theory of international relations. Encourages students to question how representation of international relations issues are produced by everyday media culture. Prerequisite: Graduate standing.

INR 5086 Islam in International Relations (IP) (3). Analysis of the role of Islam in shaping the dynamics of contemporary international relations. Emphasis on the ideological, cultural, and political role of Islamic movements and states, and their relations with the West. (F)

INR 5087 Ethnicity and the Politics of Development (IP) (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics. (F)

INR 5088 Feminism and International Relations (IP) (3). Familiarizes students with major theoretical traditions of feminist thinking and surveys feminist literature in the sub-fields of security studies, political economy, and global governance. Prerequisites: Graduate standing or permission of the instructor.

INR 5255 Seminar in African Development (AS) (3). Examines political, economic and social development in Sub-Saharan Africa in an international context. Introduces students to sources for research in African international development. Prerequisite: Graduate standing.

INR 5275 International Relations of the Middle East (AS) (3). Focuses on IR of the contemporary Middle East, the foreign policy of major regional states, regional conflicts, and the US and other great powers' involvement, and dynamics of social and religious movements and revolutions. Prerequisites: Graduate standing or permission of the instructor.

INR 5315 Foreign Policy Analysis (FP) (3). Comparative examination of theories of foreign policy making, emphasizing the international, domestic, and organizational contexts in which national policies are formulated and enacted. Prerequisites: Graduate standing or permission of the instructor. (F)

INR 5352 Environment and Security (IP) (3). Examines the relationship between environmental issues and international security. Surveys such topics as resource scarcity, environmental degradation, and deforestation and their implications for national and regional security. Considers such topics as international environmental law, and international environmental regimes.

INR 5409 International Law I (IL) (3). Role of international law in the relations of states; nature, development, theory, sources of law; international personality; jurisdiction, including territory and nationality; dispute settlement. (F)

INR 5507 International Organizations I (IL) (3). Study of international organizations and their role in international relations. Emphasis on their legal status, rule-making capacities and role in dispute settlement and maintenance of peace. (S)

INR 5544 The New Asian Century (AS) (3). Critically examines Asian regional identity, Asia's role in the modern world economy, national and regional institution building, new security challenges, and the legacy of the past.

Prerequisites: Graduate standing or permission of the instructor.

INR 5607 International Relations and Development (IP) (3). An analysis and conceptualization of the process of development as it takes place in the international context. Special attention given to the role of international organizations in promoting development and the manner in which differences in developmental levels conditions international relations. (S)

INR 5609 Contemporary Dynamics of International Relations (IP) (3). Surveys the 20th century's large events and important tendencies decade by decade, as registered by intellectual and policy elites at the time.

INR 5615 Research Design in International Relations (3). Introduces graduate students to the principles of formulating and defending a compelling research design, gathering and analyzing evidence, and producing scholarship.

INR 5906 Independent Study (VAR). Directed independent research. Requires prior approval by instructor. (F,S,SS)

INR 5943 Internship in International Relations (1-6). Permits student to gain direct experience with analysis and conduct of international affairs. Work required for internship must be determined in consultation with instructor. Prerequisites: Graduate standing and permission of the instructor.

INR 5945 Graduate Pedagogy (1). The development of teaching skills required by graduate assistants, including classroom skills, designing examinations, etc. Prerequisite: Graduate Assistants.

POS 3258 International Relations on Film (IP) (3). Features popular films to analyze, interpret, conceptualize, and critique crucial aspects, issues, and events of international relations practice.

Liberal Studies

Janat F. Parker, *Professor, Psychology, and Director of Liberal Studies*
Leonard Keller, *Professor, Chemistry and Biochemistry and Associate Director of Liberal Studies*
Kenneth Rogerson, *Professor and Chairperson, Philosophy and Associate Director of Liberal Studies, BBC*
Kiriake Xerohemona, *Lecturer, Philosophy, Director of Master of Arts in Liberal Studies*

The Liberal Studies Program exposes the student to a wide range of courses offered by the College, while granting the opportunity to pursue an individualized program of studies under the Liberal Studies guidelines. These guidelines include six categories of courses: (1) Foundations of Liberal Studies, two courses to be taken as early as possible; (2) Interdisciplinary Colloquia, two courses involving faculty from several departments of the College, and dealing with interdisciplinary topics; (3) Natural Sciences, two courses to expose the student to the scientific method and its application to problems in biology, chemistry, environmental science, earth sciences, and physics; (4) Humanities, two courses dealing with the analysis of literary, philosophical, religious and historical texts or appreciation of works of art, music, and theatre; (5) Social Sciences, two courses to expose the student to the basic theories and methods of social scientists in the fields of anthropology, economics, international relations, political science, psychology, and sociology; (6) Artistic Creation, one course in studio art or music, creative writing, or theatre to allow the student to experiment with his or her own creativity, and to experience the work of the artist.

Students are free to choose any combination of courses within these guidelines. Under the advisement of the Director or Associate Director of Liberal Studies, the student will be encouraged to pursue a minor, a certificate, or a double major.

Bachelor of Arts

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisites

No specific courses required; all students are encouraged to complete the Associate in Arts degree.

Recommended Courses: Arts and Sciences concentration recommended.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

Required Courses: (33 credits)

Courses offered by any of the units of the College of Arts and Sciences, chosen in accordance with academic guidelines of the Program of Liberal Studies, to meet requirements in the four following areas:

Natural Sciences	6
Humanities	6
Social Sciences	6
Artistic Creation	3
Interdisciplinary Colloquia offered by the Liberal Studies Program	6
Foundations of Liberal Studies	6

All courses must be completed with a grade of "C" or better.

Electives: (27 credits)

The remaining hours will be taken as electives.

Combined Bachelor/Master of Arts in Liberal Studies

The combined (4+1) Bachelor/Master of Arts in Liberal Studies offers outstanding undergraduate FIU students in majors such as Philosophy and Liberal Studies the opportunity to earn a Masters degree in only one additional year beyond the BA degree.

The (4+1) program represents two distinct patterns:

1. Philosophy to MALS. This option allows students to complement the undergraduate major with graduate study in another area.
2. Liberal Studies to MALS. This option allow students to complement the undergraduate major with graduate study in the same discipline as the undergraduate study.

Applicants to the accelerated program need a GPA of 3.20. Formal admission to the accelerated program is usually in the first semester of the senior year. Students would be also required to maintain a GPA of at least 3.20 to remain in the program. Participation in this program allows the students to fulfill some graduate program requirements during their senior year. More specifically, students at the senior level may be allowed to earn up to 9 graduate credits that will count towards their MALS degree. Up to 3 graduate courses (9 credits) may be used to satisfy both the Bachelor and Masters degree requirements. All double counted courses must be at the 5000 level of higher. Courses to be allowed to be double counted must be approved by MALS. Before starting the graduate program students must have satisfied all general education and core requirements.

The curriculum for the (4+) MALS will meet criteria identical to those of the MALS program. A student will not be eligible for assistantship funding before completing all requirements for the Bachelors degree. For the double counted courses, students must, in consultation with their graduate program advisor, approve that the student is taking the course for graduate credit. Graduates and undergraduates may have different work loads and grading criteria. The student must earn a grade of "B" or better for these courses to count towards the Masters requirements.

Admission Requirements

(1) Current enrollment in a bachelors degree in Philosophy or Liberal Studies.
(2) Completed at least 90 credits hours of coursework.
(3) Current GPA of 3.20 or higher.
(4) Application to the Department to enroll in the (4+1) MALS program that will include
   (a) Three letters of recommendation
   (b) Personal statement [2-3 pages] describing goals and objectives in seeking a combined accelerated degree
   (c) A 8-25 paged writing sample of satisfactory quality
(5) On-line application to the University Graduate Shool for admission to the MALS program.

(6) Positive evaluation by the undergraduate program director.
(7) Approval of the graduate admissions committee.
(8) In addition to the admission requirements of the (4+1) MALS program, students must meet all the admission requirements of the University Graduate School.

Completion Requirements

(1) Completion of both the required courses for the BA (33 credits) and the required courses for the MALS (33 credits).
   (a) For the Philosophy to MALS pattern, either 3 Great Ideas Seminars or 3 – 5000 or 6000 level courses in Natural Sciences, Humanities or Social Sciences may be used to satisfy both the Bachelors and Masters degree.
   (b) For the Liberal Studies to MALS pattern, either the 3 Great Ideas Seminars or 3 – 5000 or 6000 level courses in Natural Sciences, Humanities or Social Sciences may be used to satisfy both the Bachelors and Masters degree.
(2) The Bachelor's degree must be awarded when the student completes the requirements for the degree. In other words, the Bachelor's degree must be awarded before the Master's degree.
(3) Students in the (4+1) MALS program have up to 1-one year to complete the Master's degree after receipt of the Bachelor's degree.
(4) Students who fail to meet the one year post BA requirement or who elect to leave the (4+1) MALS program at any time and earn only the BA degree will have the same access requirements to regular graduate program as any other student, but will not be able to use the 9 credits in both the Bachelor's and the Master's degrees.

Summary of Degree Requirements

Great Ideas Seminars:	9 hours (minimum*)
Interdisciplinary Concentration:	18 hours (minimum*)
Master's Essay or Master's Thesis:	3 hours or 6 hours
Total Hours:	33 hours (minimum*)

*33 hours of coursework are required of all (4+1) MALS students. However, a maximum of 3 hours are awarded for the "Master's Essay" course as opposed to 6 hours for "Master's Thesis" course. Students who choose the Essay option must complete either 4 Great Ideas Seminars or 21 hour Interdisciplinary Concentration.

Course Descriptions

Definition of Prefixes

IDS-Interdisciplinary Studies

IDS 2930 Faculty Scholars Seminar (1). Provides freshman Faculty Scholars the opportunity to participate in the interdisciplinary study of significant themes. May only be taken twice.

IDS 3930 Foundations of Liberal Studies (3). This will be a broad synthesis of knowledge and methods in the Arts and Sciences taught from the perspective of different disciplines. Specific topics will be announced in advance.

IDS 3949 Cooperative Education in Liberal Studies (3). A student majoring in Liberal Studies may spend one semester fully employed in industry in a capacity relating to the major. This course must be taken as an elective.

IDS 4905 Independent Study (VAR). Cross-disciplinary topics for individual study and research to be chosen by students in consultation with their faculty advisors. This course must be taken as an elective.

IDS 4920 Liberal Studies Colloquia (3). Individual sections will study, from an interdisciplinary perspective, issues selected and presented jointly by College faculty. Specific topics will be announced in advance.

IDS 4930 Foundations of Liberal Studies (3). This will be a broad synthesis of knowledge and methods in the Arts and Sciences, taught from the perspective of different disciplines. Specific topics will be announced in advance.

IDS 4949 Cooperative Education in Liberal Studies (3). A student majoring in Liberal Studies may spend one semester fully employed in industry in a capacity relating to the major. This course must be taken as an elective.

Labor Studies

Dawn Addy, *Director, Labor Studies Concentration*
Thomas Humphries
Bruce Nissen

The Liberal Studies Program of the College of Arts and Sciences offers a Concentration in Labor Studies as an option within the program. As an academic discipline, Labor Studies has its roots in both the social sciences and the workers' education movement of the early twentieth century. Labor Studies as a discipline acknowledges insights into the labor field which have emerged from decades of university-union cooperation in labor affairs apart from the traditional framework of industrial relations. According to this concept, Labor Studies is the academic examination of issues which confront people in the pursuit of their need for rewarding employment. The focus of inquiry is on workers as individuals, as members and/or leaders in their unions or associations, and as citizens of their communities.

People in pursuit of rewarding jobs and careers have employed and continue to develop a variety of individual and collective strategies to cope with the dynamics of change in society, including the development of unions and other workers' associations. Because these unions and associations also conduct autonomous economic, social and political programs which transcend their labor relations nexus with management, Labor Studies reaches beyond industrial relations and addresses an additional set of questions and concerns.

Thus, Labor Studies takes as its focus the individual workers, the unions and associations that workers develop, and the internal and external relations of those unions and associations to other societal institutions in the United States and around the world. The scope of Labor Studies is dictated by the needs and interests of workers and employees, including their individual, group and organizational problems in the workplace; their relationships with their employers; and their interactions with the larger community, economy, and polity.

A student majoring in Liberal Studies may earn the Concentration in Labor Studies by fulfilling the requirements of both programs. The Concentration is a nine-course (27-credit hour) program of study within the Liberal Studies Degree.

Required Courses for Liberal Studies: (33)
Thirty-three semester hours of concentration at the 3000 or 4000 level as required for all Liberal Studies students to be selected in consultation with and agreement of advisor. Courses are to meet requirements in the following areas:

Natural Sciences	6
Humanities	6
Social Sciences	6
Artistic Creation	3
Interdisciplinary Colloquia	6
Foundations of Liberal Studies	6

When possible, these courses should be selected from the list of required and elective courses for Labor Studies. All courses must be completed with a grade of 'C' or better.

Required Courses for Labor Studies Concentration: (12)

LBS 3001	Introduction to Labor Studies

Minimum of three courses (nine hours) to be chosen from the following: (additional courses from this list may be used to fulfill electives). To be chosen in consultation with and agreement of advisor.

ECO 2023	Principles of Microeconomics
LBS 4101	Theories of the Labor Movement
LBS 4210	Women and Work in the United States
LBS 4501	Labor Law
LBS 4900	Directed Study in Labor Studies
SYO 4360	Work & Society

Electives (15)

To be chosen from the following in consultation with and agreement of advisor (some of these courses may require prerequisites).

Economics

ECO 2013	Principles of Macroeconomics
ECO 3303	Development of Economic Thought
ECO 4321	Radical Political Econ
ECO 4622	Economic Development of U.S.
ECO 4701	World Economy
ECO 4733	Multinational Corporations
ECP 4203	Intro to Labor Economics
ECP 4204	Theory of Labor Economics
ECS 3402	The Political Economy of South America

History

AMH 2020	American History 1850-Present
AMH 3270	Contemporary U.S. History
AMH 4251	The Great Depression
AMH 4500	United States Labor History
EUH 4660	Modern Europe, 1789 to the Present
LAH 3200	Latin America: The National Period
LAH 4511	Argentina: 18th-20th Centuries
LAH 4600	History of Brazil

Industrial Engineering

EIN 4214	Safety in Engineering
EIN 4261	Industrial Hygiene

International Relations

INR 3004	Patterns of International Relations
INR 3043	Population and Society
INR 4283	International Relations, Development, and the Third World

Labor Studies

LBS 4150	Contemporary Labor Issues
LBS 4260	Union Leadership and Administration
LBS 4401	Labor Contract Negotiations
LBS 4461	Labor Dispute Resolution
LBS 4654	Comparative and International Labor Studies
LBS 4905	Topics in Labor Studies
LBS 4930	Topics in Labor Studies
LBS 5464	Labor Arbitration

Management

MAN 4401	Collective Bargaining
MAN 4410	Union-Management Relations
MAN 4610	International and Comparative Industrial Relations

Philosophy

PHI 2600	Introduction to Ethics
PHI 3636	Professional Ethics
PHM 3200	Social and Political Philosophy
PHM 3400	Philosophy of Law

Political Science

POS 3424	Legislative Process
POS 4071	Corporate Power and Politics
POS 4122	State Government and Politics
POT 3204	American Political Thought
POT 3302	Political Ideologies
PUP 4004	Public Policy (U.S.)

Psychology

INP 2002	Introductory Industrial/Organizational Psychology

Public Administration

PAD 2002	Intro to Public Administration
PAD 4223	Public Sector Budgeting
PAD 5427	Collective Bargaining in the Public Sector

Sociology/Anthropology

ANT 4007	The Organizer
ISS 3330	Ethical Issues in Social Sciences
SYA 3300	Research Methods
SYA 4010	Sociological Theories
SYO 4360	Work & Society
SYO 4530	Social Inequality
SYP 4421	Man, Society and Technology

Statistics

STA 1013	Statistics for Social Services
STA 2122	Introduction to Statistics I
STA 3123	Introduction to Statistics II

Theatre

SPC 2600	Public Speaking

Course Descriptions

Definition of Prefixes
LBS - Labor Studies

LBS 3001 Introduction to Labor Studies (3). History and development of the labor movement, with emphasis on union development as a response to industrialization and technological change. Includes the structure and functioning of modern unions, the development of modern technology, the industrial working class, and the impact of the rural-urban shift of labor.

LBS 3470 Labor Contract Administration (3). Use of grievance procedure to administer a collective bargaining agreement. Identification, research, presentation and

writing of grievance cases. Technical and legal role of union steward.

LBS 3943 Internship in Labor Studies (3). Practical training and experience in various aspects of labor organization policies, practices, and procedures through placement with a local labor organization. Reports and papers required. Prerequisite: Permission of the instructor.

LBS 3949 Cooperative Education in Labor Studies (1-3). One or two semesters of part or full-time work related to the major. Written reports and supervisor evaluations required. Prerequisite: Permission of Labor Studies Program.

LBS 4101 Theories of the Labor Movement (3). This course deals with theories which have attempted to explain the origins, developments, and functioning of the labor movement.

LBS 4150 Contemporary Labor Issues (3). Studies of contemporary labor issues selected from such areas as collective bargaining, arbitration, mediation, legislation, regulative and administrative law, employment discrimination, and union grievances.

LBS 4154 Workers and Diversity (3). The theoretical debates surrounding the workforce participation of women and minorities as well as the historical position of these groups in the labor force are studied. Students explore social phenomena that contribute to the continuation of discriminatory practices and study and analyze the policies that attempt to address these issues. Prerequisites: Junior or Senior standing.

LBS 4210 Women and Work in the United States (3). The role of women in the work force and in unions with historical, social, and economic emphasis.

LBS 4260 Union Leadership and Administration (3). Administration of labor organizations; labor policies and practices; legal requirements and financial administration of unions. Prerequisite: LBS 3001.

LBS 4401 Labor Contract Negotiations (3). A comprehensive study of collective bargaining with emphasis upon the private sector. Included will be negotiations and scope of contracts, day-to-day contract administration, and major bargaining issues.

LBS 4461 Labor Dispute Resolution (3). Theory and practice of dispute resolution in industry arbitration processes, grievances, mediation, fact-finding, and conciliation. Arbitration of industrial claims and disputes, commercial arbitration. Prerequisite: LBS 3001.

LBS 4484 Classroom Conflict Resolution (3). Investigate conflict and violence, and help students to develop strategies to defuse them in the classroom.

LBS 4501 Labor Law (3). Studies the history and current functioning of labor law with special emphasis upon the private sector.

LBS 4610 Cross Cultural Dimensions of Latin American Labor Relations (3). A survey of the issues, techniques, and professional competencies required to effectively understand and contribute to furthering fluid and productive labor management relationships in the hemisphere.

LBS 4653 Labor Movements in Developing Countries (3). The role that unions play in developing or recently developed countries; the relationship between economic development strategies and union structure/strategy; role of unions in representing popular social sectors; special emphasis on Latin American and Asian labor movements.

LBS 4654 Comparative and International Labor Studies (3). A study of labor issues from a comparative and international perspective with emphasis upon the impact of international organizations on labor relations systems and a comparison among major labor relations models.

LBS 4900 Directed Study in Labor Studies (3). Supervised reading and/or field research and training.

LBS 4905/4930 Topics in Labor Studies (1-3). Selected topics or themes in Labor Studies. The themes will vary from semester to semester. With a change in content, course may be repeated.

LBS 4949 Cooperative Education in Labor Studies (1-3). One or two semesters of part or full-time work related to the major. Written reports and supervisor evaluations required. Prerequisite: Permission of Labor Studies Program.

LBS 5155 Workplace Diversity (3). Students examine theoretical debates surrounding workforce participation of women and minorities; historical position of these groups in labor force; social phenomena that contribute to discriminatory practices and development of policies to eliminate discriminatory practices.

LBS 5215 Women in the United States Workplace (3). Students explore womens' changing role in U.S. workplace and development of workers' organizations from Colonial era to modern day. Special attention given to role of class, race, and ethnicity within context of gender.

LBS 5406 Collective Bargaining and Labor Relations (3). A comprehensive study of major issues and themes in American collective bargaining. Includes origins of collective bargaining, labor law, unionization, contract negotiations patterns in contract content, impact of external laws, public sector unions, grievance arbitration and interest arbitration. Prerequisite: Permission of the instructor.

LBS 5464 Labor Arbitration (3). Study of labor dispute resolution with emphasis on grievances, fact-finding, and arbitration.

LBS 5465 Introduction to Mediation (3). Examines the role of mediation in resolving civil, commercial, family, public and workshop disputes. Incorporates mediation principles and skills, different approaches to mediation, and current research in mediation. Prerequisite: Permission of the instuctor.

LBS 5466 Family Mediation (3). Provides a comprehensive understanding of conflict resolution, power and balances, emotional and psychological issues, negotiation techniques as well as the development of practical skills in the field of family mediation. Prerequisite: Permission of the instructor.

LBS 5467 Civil Mediation (3). A comprehensive understanding of the field of civil mediation as well as the

development of the practical skills to be a civil mediator. Prerequisite: Permission of the instructor.

LBS 5485 Fundamentals of Conflict Resolution (3). Survey of the major contemporary theories of organizational functioning and the management of conflict within and among organizations in a globalized world. Theories that center primarily within the fields of dispute resolution, sociology, and social interaction/group theory will be emphasized. Prerequisite: Permission of the instructor.

LBS 5486 The Dynamics of Conflict Management (3). Investigate conflict and violence, and help students to develop strategies to defuse them in the classroom.

LBS 5507 Labor and Employment Law (3). Familiarizes the student with the legal issues and rules regarding unionization of employees, the collective bargaining process, the relationship between the employee and his/her union, and the administration of collective bargaining agreements. Examines the legal framework within which collective bargaining occurs and also familiarizes students with additional issues of rights in employment. Prerequisite: Permission of the instructor.

LBS 5658 Labor Movements and Economic Development (3). Relationships between unions and economic development strategies in developing/recently developed countries; emphasis on social movement unionism and unions in Latin America and Asia. Prerequisite: Permission of the instructor.

LBS 5930 Topics in Labor Studies (1-3). Selected topics or themes in Labor Studies. Themes will vary from semester to semester. With a change in content, course may be repeated. May include field work. Prerequisite: Graduate standing.

LBS 5931 Topics in the Philosophy and Methods of Conflict Research (3). Provides an examination of the philosophy, methods, and research in the field of conflict resolution. The particular content and orientation of the course may vary according to the particular focus examined. Prerequisite: Permission of the instructor.

LBS 6906 Directed Individual Study (3). Specialized intensive study in areas of interest to student. Student plans and carries out independent study project under the direction of faculty member. Topics must relate to content of Labor Studies or ADR. Prerequisite: Permission of the instructor.

LBS 6945 Internship Labor Studies / Alternative Dispute Resolutions (3). Practical training and experience in organization according to students needs and interests. Reports and papers required. Prerequisite: Permission of the instructor.

Mathematics

Julian Edward, *Associate Professor and Chairperson*
Gerardo Aladro, *Associate Professor*
Chongsheng Cao, *Assistant Professor*
Laura DeCarli, *Associate Professor*
Tedi Draghici, *Associate Professor*
Domitila Fox, *Instructor*
Laura Ghezzi, *Assistant Professor*
Susan Gorman, *Instructor*
Gueo Grantcharov, *Associate Professor*
Steven M. Hudson, *Associate Professor*
George Kafkoulis, *Associate Professor*
Solange Kouemou, *Lecturer*
Mark Leckband, *Associate Professor*
Thomas Leness, *Associate Professor*
Bao Qin Li, *Professor*
Diana McCoy, *Instructor*
Abdelhamid Meziani, *Professor*
Richard Nadel, *Instructor*
Taje Ramsamujh, *Associate Professor*
David Ritter, *Associate Professor*
Michael Rosenthal, *Instructor*
Dev K. Roy, *Associate Professor*
Richard L. Rubin, *Associate Professor*
Philippe Rukimbira, *Professor*
Carmen Shershin, *Instructor*
Theodore Tachim Medjo, *Associate Professor*
Louis Roder Tcheugoue Tebou, *Associate Professor*
Enrique Villamor, *Professor*
Anna Wlodarczyk, *Instructor*
Yi Zhi Yang, *Instructor*
Mirroslav Yotov, *Assistant Professor*
John Zweibel, *Associate Professor*

An undergraduate student may major in Mathematics or in Mathematical Sciences. The Bachelor's degree in Mathematics emphasizes a deeper study of pure mathematics in the traditional mode. A student planning to continue into graduate study should major in Mathematics.

The Mathematical Sciences degree offers an alternative involving more breadth. The mathematical requirements, which are fewer and tend to be more applied, are supplemented by additional requirements in computer science and applied statistics.

Bachelor of Science in Mathematical Sciences

Degree Program Hours: 120

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Required Courses

Common Prerequisites

MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Calculus III
COP 2210	Introduction to Programming
	or
COP 2250	Java Programming
	or
CGS 2423	C for Engineers

Completion of two of the following courses with labs:

BSC 1010	General Biology I
BSC 1010L	General Biology Lab I
BSC 1011	General Biology II
BSC 1011L	General Biology Lab II
CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
CHM 1046	General Chemistry II
CHM 1046L	General Chemistry Lab II
PHY 2048	Physics with Calculus I
PHY 2048L	Physics with Calculus Lab I
PHY 2049	Physics with Calculus II
PHY 2049L	Physics with Calculus Lab II

Courses required for the degree:

MAP 2302	Differential Equations
MAS 3105	Linear Algebra

Upper Division Program

Required Courses

COP 3337	Intermediate Programming	3
COP 3402	Fundamentals of Computer Systems	3
MAD 2104	Discrete Mathematics	3
MAD 3401	Numerical Analysis	3
MAD 3512	Introduction to the Theory of Algorithms	3
MAT 4934	Senior Seminar	1
MAP 4401	Advanced Differential Equations	3
STA 3163-4	Statistical Methods I and II	3-3

In addition, two courses from the following list:

COP 3530	Data Structures	3
MAA 4402	Complex Variables	3
MAD 3305	Graph Theory	3
MAD 4203	Intro to Combinatorics	3
MAD 5405	Numerical Methods	3
MAP 3103	Mathematical Modeling	3
MAS 5145	Applied Linear Algebra	3
MHF 4302	Mathematical Logic	3
STA 4603	Mathematical Techniques in Operations Research I	3
STA 4604	Mathematical Techniques in Operations Research II	3
STA 5446	Probability Theory	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.

Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematical Sciences major: MAC 2233, STA 1013, STA 3122-23, STA 2023, and QMB 3150 (College of Business Administration).

Minor in Mathematical Sciences

Required Courses

MAC 2311-2-3. Calculus I,II,III *(or equivalent)*.

Plus MAP 2302, MAS 3105, and two courses from those approved for the Mathematical Sciences Major program. A grade of 'C' or higher is necessary for the minor.

Remarks: Courses completed elsewhere may be applied to the Mathematical Sciences minor, with the approval of the department. However, at least 2 of the 4 courses noted above, excluding MAC 2311-2-3, must be completed at FIU.

Bachelor of Science in Mathematics

Degree Program Hours: 120

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Required Courses
Common Prerequisites

MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Calculus III
COP 2210	Introduction to Programming
	or
COP 2250	Java Programming
	or
CGS 2423	C for Engineers

Completion of two of the following courses with labs:

BSC 1010	General Biology I
BSC 1010L	General Biology Lab I
BSC 1011	General Biology II
BSC 1011L	General Biology Lab II
CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
CHM 1046	General Chemistry II
CHM 1046L	General Chemistry Lab II
PHY 2048	Physics with Calculus I
PHY 2048L	Physics with Calculus Lab I
PHY 2049	Physics with Calculus II
PHY 2049L	Physics with Calculus Lab II

Courses required for the degree:

MAP 2302	Differential Equations
MAS 3105	Linear Algebra

Upper Division Program

Required Courses

MAA 3200	Introduction to Advanced Mathematics	3
MAA 4211	Advanced Calculus	3
MAS 4301	Algebraic Structures	3
MAT 4934	Senior Seminar	1
STA 4321	Mathematical Statistics I	3

In addition, three courses from each of the following lists.

List 1

MAD 4203	Introduction to Combinatorics	3
MAA 4402	Complex Variables	3
MTG 3212	College Geometry	3
MAS 4203	Number Theory	3
MAA 4212	Topics in Advanced Calculus	3
MAS 4302	Topics in Algebraic Structures	3
MTG 4302	Topology	3

List 2

MAP 4401	Advanced Differential Equations	3
MAD 3305	Graph Theory	3
MAP 3103	Mathematical Modeling	3
STA 4322	Mathematical Statistics II	3
MAD 3401	Numerical Analysis	3
MHF 4302	Mathematical Logic	3
MHF 4102	Axiomatic Set Theory	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.

Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematics major: MAC 2233, STA 1013, STA 3122-23, STA 2023, and QMB 3150 (College of Business Administration).

Minor in Mathematics

Required Courses

MAC 2311-2-3 Calculus I-I-III *(or equivalent)*.

Plus four courses from those approved for the Mathematics Major program. MAP 2302 and MAS 3105 may be included among these four courses. A grade of 'C' or higher is necessary for the minor.

Remarks: Courses completed elsewhere may be applied to the Mathematics minor, with the approval of the department. However, at least 2 of the 4 courses noted above, excluding MAC 2311-2-3, must be completed at FIU.

Certificate in Actuarial Studies

The department offers a certificate in Actuarial Studies. For further information refer to the Certificate section at the end of the College of Arts and Sciences' section.

Course Descriptions

Definition of Prefixes

MAA-Mathematics, Analysis; MAC-Mathematics, Calculus and Pre-Calculus; MAD-Mathematics, Discrete; MAP-Mathematics, Applied; MAS-Mathematics, Algebraic Structures; MAT-Mathematics, General; MGF-Mathematics, General and Finite; MHF-Mathematics, History and Foundations; MTG- Mathematics, Topology and Geometry.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

MAA 3200 Introduction to Advanced Mathematics (3). Topics include: naive set theory, functions, cardinality, sequences of real numbers and limits. Emphasis on formal proofs. Prerequisite: MAC 2313. (F)

MAA 4211 Advanced Calculus (3). An intense study of the foundations of calculus. Topics may include: the real number system, continuity, differentiation, Riemann-Stieltjes integration, and series of functions. Note: The student must complete MAA 3200 before attempting this course. Prerequisites: MAC 2313, MAS 3105 and MAA 3200. (S)

MAA 4212 Advanced Calculus II (3). A sequel to MAA 4211. Topics may include: theory of integration; analysis in several variables; and Fourier series. Prerequisite: MAA 4211.

MAA 4402 Complex Variables (3). An introduction to complex variables, beginning with the algebra and geometry of the complex number system. Topics include: complex functions; analytic functions; Cauchy's theorem and its consequences; Taylor and Laurent series; residue calculus; evaluation of real integrals and summation of series; conformal mapping. Prerequisites: MAC 2313, and MAP 2302 or MAA 4211. (F)

MAC 1105 College Algebra (3). Operations on polynomials, rational expressions, radicals; lines, circles; inverse functions, exponential and logarithmic functions; systems of equations and inequalities. Students cannot receive credit for both this course and MAC 2147. Prerequisites: High school algebra and adequate placement test score. (F,S,SS)

MAC 1114 Trigonometry (3). Trigonometric functions, identities, conditional equations, polar coordinates, vectors, polar graphs, complex numbers, DeMoivre's Theorem, conic sections. Student cannot receive credit for both this course and MAC 2147 Precalculus. Prerequisite: Grade of "C" or higher in College Algebra. (F,S,SS)

MAC 2147 Pre-calculus Mathematics (3). Topics to be covered include: functions, exponential and logarithmic functions, trigonometry and the basics of analytic geometry. Prerequisites: Two years of high school algebra and adequate placement test score. (F,S,SS)

MAC 2233 Calculus For Business (3). A one semester introduction to the basic notions of calculus. Specific topics include: Differential Calculus using polynomial, exponential and logarithmic functions, and its application to optimization; integral calculus with area and probability applications. Prerequisites: Grade of "C" or higher in College Algebra or Precalculus or adequate placement test score. (F,S,SS)

MAC 2311 Calculus I (4). Limits, derivatives and their formulas, applications of derivatives, introduction to anti derivatives, introduction to parametric curves. Prerequisites: Grade of "C" or higher in Trigonometry or Precalculus or adequate placement test score. (F,S,SS)

MAC 2312 Calculus II (4). Applications of the integral, integration techniques, improper integrals, Riemann sums, the integral, Fundamental Theorem of Calculus, infinite series, Taylor series, polar coordinates, parametric equations. Prerequisites: Grade of "C" or higher in Calculus I or AP Calculus credit. (F,S,SS)

MAC 2313 Multivariable Calculus (4). This course deals with the differential and integral calculus of real valued multivariable functions. The topics include: directional and partial derivatives, gradients, and their applications; differential calculus of vector valued functions; multiple, iterated, line, and surface integrals. Prerequisites: MAC 2312 or equivalent with a grade of 'C' or better. (F,S,SS)

MAD 1100 Mathematics for Information Technology (3). Introduction to discrete mathematical structures with emphasis on applications to information technology: binary numbers, logic, sets, functions, recursion, combinatories, graph theory, Boolean algebra. Prerequisite: College Algebra.

MAD 2104 Discrete Mathematics (3). Sets, functions, relations, permutations, and combinations, propositional logic, matrix algebra, graphs and trees, Boolean algebra, switching circuits. Prerequisites: COP 2210 or CGS 2420. (F,S,SS)

MAD 3305 Graph Theory (3). An introduction to the study of graphs. Topics include the following: paths and circuits, connectedness, trees, shortest paths, networks, planar graphs, the coloring of graphs, and directed graphs. Applications of graphs to computer science will be discussed. Prerequisites: COP 2210 or CGS 2420 and either MAS 3105 or MAD 2104. (F,S,SS)

MAD 3401 Numerical Analysis (3). Basic ideas and techniques of numerical analysis. Topics include: finite differences, interpolation, solution of equations, numerical integration and differentiation, applications, introduction to applied linear algebra. This course will make extensive laboratory use of the computer facility. Prerequisites: COP 2210 or CGS 2420 and MAC 2312. (F,S,SS)

MAD 3512 Theory of Algorithms (3). Strings, formal languages, finite state machines, Turing machines, primitive recursive and recursive functions, recursive unsolvability. Prerequisite: MAD 2104. Computer Science majors must also take COT 3420. (F,S,SS)

MAD 4203 Introduction to Combinatorics (3). A survey of the basic techniques of combinatorial mathematics. Topics will include the Pigeonhole Principle, Binomial Coefficients, Inclusion-Exclusion, Recurrence Relations, and Generating Functions. Prerequisites: MAC 2313 or both MAC 2312 and MAD 2104. (SS)

MAP 2302 Differential Equations (3). An introduction to differential equations and their applications, based upon a knowledge of calculus. Topics to include: initial value problems of the first order, numerical solutions, systems of differential equations, linear differential equations, Laplace transforms, series solutions. Prerequisite: MAC 2312 with a grade of 'C' or better. (F,S,SS)

MAP 3103 Mathematical Modeling and Applications (3). A course to provide an understanding of the use of mathematical models in the description of the real world. Basic principles in the philosophy of formal model building as well as specific models will be considered. Prerequisites: MAS 3105 and either MAC 2313 or MAP 2302.

MAP 3103L Lab for Mathematical Modeling (1). Lab sessions complement the course of mathematical modeling (MAP3103). Computer projects using "MATLAB" will be used. Prerequisite: MAC 2313. Corequisite: MAP 3103.

MAP 3104 Topics in Mathematical Modeling (3). A sequel to MAP 3103. In-depth study of techniques listed for MAP 3103. Prerequisite: MAP 3103.

MAP 4401 Advanced Differential Equations (3). A second course in differential equations. Topics may include: Bessel functions and other special functions arising from classical differential equations, Sturm-Liouville problems, partial differential equations, transform techniques. Prerequisites: MAP 2302 and MAC 2313. (S)

MAP 4401L Lab for Advanced Differential Equations (1). Lab sessions complement the course of advanced differential equations (MAP4401). Computer projects using "MATLAB" will be used. Prerequisites: MAP 2302, MAC 2313. Corequisite: MAP 4401.

MAS 3105 Linear Algebra (3). An introduction to the topics in linear algebra most often used in applications. Topics include: matrices and their applications; simultaneous linear equations and elementary operations; linear dependence; vector spaces; rank and inverses; inner products and 'best' approximations; numerical solutions of simultaneous linear equations; eigen-values

and eigenvectors; iterative methods for calculating eigenvalues; and systems of linear equations. Prerequisite: MAC 2312. (F,S,SS)

MAS 3931 Topics in Actuarial Mathematics (1). Topics related to calculus/linear algebra such as mono-tone sequences, least upper bound, complex arithmetic, solid analytic geometry, linear transformations. Mathematics involved in insurance. Prerequisite: Admission to Actuarial Studies Certificate program.

MAS 4203 Number Theory (3). Topics to be discussed are selected from the following: congruences, Diophantine equations, distribution of primes, primitive roots, quadratic reciprocity, and classical theorems of number theory. Prerequisites: MAA 3200 or MAS 3105 or MTG 3212. (SS)

MAS 4301 Algebraic Structures (3). An introduction to abstract mathematical structures of modern algebra. Fundamental concepts of groups, rings, and fields will be studied. Note: the student must complete MAA 3200 before attempting this course. Prerequisites: MAS 3105 and MAA 3200. (S)

MAS 4302 Topics in Algebraic Structures (3). A sequel to Algebraic Structures. Topics may include: a continuation of the study of groups, rings and/or fields; polynomial domains; Euclidean domains; and Galois theory. Prerequisite: MAS 4301.

MAT 2949 Cooperative Education in Mathematical Sciences (1-3). One semester of full-time supervised work in an outside organization taking part in the University Co-op program. A written report and supervisor evaluation will be required of each student. Prerequisites: Calculus I and COP 2210.

MAT 3905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

MAT 3930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

MAT 3949 Cooperative Education in Mathematical Sciences (1-3). One semester of full-time supervised work in an outside organization taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student. Prerequisites: Calculus II and COP 2210.

MAT 4905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

MAT 4930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

MAT 4934 Senior Mathematics Seminar (1). An exploration of research topics in the student's subfield. Coursework will include a written report, oral presentation, and departmental major field test. Prerequisite: Senior standing.

MAT 4943 Mathematical Sciences Internship (VAR). A special program to encourage students to get on-the-job experience in computer sciences, statistics, or mathematics in an industrial enterprise, governmental agency or other organization. Requirements: minimum grade of 'B' or higher in all courses in the major area, and approval by Departmental Internship Committee. Application is required at least one term in advance of registration for this course.

MAT 4949 Cooperative Education in Mathematical Sciences (1-3). One semester of full-time supervised work in an outside organization taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student. Prerequisites: Calculus II, a statistics course, and COP 2210.

MGF 1106 Finite Mathematics (3). Study of concepts and applications involving finite mathematical processes such as sets, combinatorial techniques, formal logic, discrete probability, linear systems, matrices, linear programming. Prerequisite: Working knowledge of high school algebra. (F,S,SS)

MGF 1107 The Mathematics of Social Choice and Decision Making (3). Voting systems and their desirable properties. Weighted voting systems, fair division procedures, apportionment methods and game theory.

MHF 3404 History of Mathematics (3). Development of mathematical thought through the ages. Topics may include equation solving, trigonometry, astronomy, and calculus. Prerequisite: MAC 2312. (S)

MHF 4102 Axiomatic Set Theory (3). Axioms of set theory, order and well-foundedness, cardinal numbers, ordinal numbers, axiom of choice, special topics. Prerequisites: MAA 3200 or permission of the instructor. (S, alternate years)

MHF 4302 Mathematical Logic (3). A study of formal logical systems and their applications to the foundations of mathematics. Topics to be selected from the following: definition of mathematical proofs; set theory; analysis formalized with the predicate calculus; theorem of Godel and Church; recursive function theory; and idealized computers. Prerequisites: MAA 3200 or MAD 3512. (S, alternate years)

MHF 4401 Topics in the History of Modern Mathematics (3). Riemannian geometry, relativity and other topics at discretion of instructor. Prerequisites: MAC 2313, MAS 3105.

MTG 1204 Geometry for Education (3). Introduction for teachers to basic concepts of Euclidean geometry with ideas and activities adaptable to classroom. Students study and analyze pattern, learning and enhancing analytic, creative and visualization skills.

MTG 3212 College Geometry (3). A study of the basic structure of Euclidean geometry together with topics from advanced Euclidean geometry and non-Euclidean geometry. Prerequisites: Calculus II or permission of the instructor. (S)

MTG 4254 Differential Geometry (3). Hypersurfaces in R^n. Geodesics and curvature. Parametrisation of surfaces, abstract manifolds. Integration, surfaces with boundary, Stokes Theorem. Isometries and intrinsic geometry. Gauss-Bonnet Theorem. Prerequisites: MAC 2311, MAS 3105, MAP 2302 or permission of the instructor.

MTG 4302 Topology (3). An introductory course in topology requiring a prerequisite knowledge of calculus. Topics to be discussed will be selected from the following: topological spaces, metric spaces, continuity, completeness, compactness, separation axioms, products spaces, subspaces, convergence, and homotopy theory. Prerequisites: MAC 2313, MAS 3105, and MAA 3200. (SS)

STA 4603-STA 4604 Mathematical Techniques of Operations Research I and II (3-3) . An introduction to those topics in mathematics associated with studies in operations research. Topics include the following: linear programming and related topics, dynamic programming, queuing theory, computer simulation, network analysis, inventory theory, decision theory, integer programming. Prerequisites: MAS 3105 and either STA 3033 or STA 4322.

Modern Languages

Pascale Bécel, *Associate Professor and Chairperson*
Aurelio Baldor, *Instructor*
Jean-Robert Cadely, *Associate Professor*
Eric Camayd-Freixas, *Associate Professor*
Ricardo Castells, *Professor*
James O. Crosby, *Professor Emeritus*
Maria Antonieta Garcia, *Instructor*
Myriam Garcia, *Instructor*
Maria Asuncion Gomez, *Associate Professor*
Yvonne Guers-Villate, *Professor Emeritus*
Asuka Haraguchi, *Instructor*
John B. Jensen, *Professor*
Santiago Juan-Navarro, *Associate Professor*
Peter A. Machonis, *Associate Professor*
Marian Montero-Demos, *Associate Professor*
Monica Prieto, *Assistant Professor*
Ana Roca, *Professor*
Juan Torres-Pou, *Associate Professor*
Augusta Vono, *Instructor*
Maida Watson, *Professor*
Marcelle Welch, *Professor*

Bachelor of Arts

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisites

French

FRE 1130	French I
FRE 1131	French II
FRE 2200	Intermediate French

Required for the Major:

FRE 2241	Intermediate French Conversation

Portuguese

Common Prerequisites

POR 1130	Portuguese I
POR 1131	Portuguese II
POR 2200	Intermediate Portuguese

Required for the Major:

POR 3400	Advanced Oral Communication

Spanish

Common Prerequisites

SPN 1130	Spanish I
SPN 1131	Spanish II
SPN 2200	Intermediate Spanish

Required for the Major:

SPN 2210	Oral Communication Skills
	or
SPN 2340	Intermediate Spanish for Native Speakers

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60)

Required Courses

Foreign Language	33 semester hours
Electives	27 semester hours

Students in the Teacher Preparation Program carry two majors: Modern Language and Modern Language Education and must request admission to both programs. (Students interested in teacher certification should contact the College of Education at (305) 348-2082.)

Requirements for all Modern Language Majors

All majors must have a designated faculty advisor, and all are required to take 33 semester hours in the Department of Modern Languages, with a grade of 'C' or higher.

Requirements For Spanish Majors

To undertake a major in Spanish, a student must demonstrate a proficiency in the language at the intermediate level. This may be done by an examination administered by the Department, or by completing SPN 2200 (non-native speakers) or SPN 2340 (native speakers).

Required credits for Major (33)
(21 credits of Core Courses and 12 credits of electives)
Core Courses

SPN 3301	Review Grammar and Writing	3
	or	
SPN 3341	Advanced Spanish for Native Speakers	3
SPN 3422	Advanced Grammar and Composition I	3
	or	
SPN 3423	Advanced Grammar and Composition II	3
SPW 3820	Peninsular Spanish Literature	3
SPW 3130	Spanish American Literature	3
SPN 3733	General Linguistics	3
	(or equivalent)	
One additional course in Spanish Linguistics		3
One additional course in Spanish		3
	or	
Spanish American Literature		3

(Students who have advanced proficiency in Spanish may replace the six language credits with electives in Spanish at the 3000 or 4000 level with the written permission of their advisors).

Elective Courses

Twelve credits of electives in Spanish at the 3000 or 4000 level from a range of courses in Spanish/Spanish American literature, Spanish linguistics, Hispanic culture, and Translation/ Interpretation.

SPN 3733	General Linguistics *(or equivalent) is a prerequisite for other linguistics offerings.*

Combined BA/Master of Arts in Spanish

Admission Requirements

- Current enrollment in the BA in Spanish at FIU.
- Current GPA must be 3.5 or higher.
- Completed at least 60 credits of course work.
- Two letters of recommendation.
- A writing sample consisting of a research paper in Spanish of analytical nature – preferably a term paper or thesis – on a literary subject.
- Approval of the Spanish Graduate Committee.

Completion Requirements

Required Courses for the BA (33 credits)

SPN 3301	Review Grammar and Writing*	3
	or	
SPN 3341	Advanced Spanish for Native Speakers*	3
SPN 3422	Advanced Grammar and Composition*	3
SPW 3820	Peninsular Spanish Literature	3

SPW 3130	Spanish American Literature	3
SPN 3733	General Linguistics (or equivalent)	3
One additional course in Spanish Linguistics		3
One additional course in Spanish		3
	or	
Spanish American Literature		3

*(Students who have advanced proficiency in Spanish may replace the six language credits with electives in Spanish at the 3000 or 4000 level with the written permission of their advisors).

Electives

Twelve credits of electives

Overlap

Nine credits will be taken at the 5000 or 6000 level and may be used to satisfy both the Bachelor's and Master's degree requirements.

Required Courses for the MA (33 credits)

SPW 5806	Methods of Literary Research	3
SPN 5705	The Structure of Spanish	3
One course in either Medieval Spanish Literature		3
	or	
Literature of the Golden Age		3
One course in Peninsular Spanish Literature of the 19th or the 20th centuries		3
Two courses in Spanish American Literature		12

Electives

Nine graduate credits of electives, as follows: 3 in Spanish or Spanish American Literature, and 6 from one or more of the following areas: Spanish or Spanish American Literature, Linguistics, Translation/Interpretation, or Spanish American Culture.

Comprehensive Exams

The comprehensive examinations should be taken the semester immediately following the completion of all course work.

Requirements for French Majors (33)

Language Courses:

Grammar (6)

FRE 3420	Review Grammar/ Writing I *(non-native or near-native speakers)*	3
FRE 3421	Review Grammar Writing II	3
FRE 4422	Review Grammar/ Writing III	3

Conversation (3)

FRE 3410	Advanced French Conversation *(non-native or near-native speakers)*	3
FRE 3413	Communication Arts	3
FRE 3504	Language and Culture	3

Phonetics (3)

FRE 3780	French Phonetics	3

Advanced Courses:

Literature (at least nine credits)

FRW 3200	French Literature I	3
	or	
FRW 3201	French Literature II	3
	or	
FRW 3810	Literary Analysis	3

Two 3-credit literature courses (FRW) preferably taken in different literary periods or genres.

Linguistics (3)

FRE 4503	La Francophonie	3
FRE 4840	History of the Language I	3
FRE 4841	History of the Language II	3
FRE 4850	Structure of Modern French	3

Civilization (6)

FRE 3504	Language and Culture	3
FRE 3500	History of French Society	3
FRE 4501	Contemporary French Society	3
FRE 4935	Senior Seminar (Civilization)	3

Elective (3)

French linguistics or literature	3

Requirements for Portuguese Majors (33)

21 credits of core courses and 12 credits of electives
All majors in the Department of Modern Languages are required to take 33 semester hours in the Department. Twenty-one of these must be in Portuguese (POR or POW prefix) at a level of POR 3400 or above. The other 12 credits may be upper-division courses in a second language, linguistics, culture, or translation, with the approval of the advisor. Courses focusing on Brazil or Portugal offered by other departments may be counted toward the degree with approval of advisor and chairperson of the Department.

Requirements for Other Language Majors

A major in a language other than Spanish or French may take only 21 credits in the major target language, but completion of at least two semesters of a second foreign language is recommended. There is no fixed sequence of courses required, and a student may enroll in any course offered for majors, provided he or she meets the course prerequisites.

Minor in French Language and Culture

A student majoring in another discipline may earn an academic minor in French Language and Culture by taking 1) 12 semester hours of course work in French language FRE 3410, FRE 3420/3421, FRE 3780; 2) three semester hours in French Civilization and Culture FRE 3500 or FRE 4501; 3) three semester hours of restricted electives courses in French linguistics, French Translation Skills or French Literature I.

Minor in Portuguese

A student majoring in another discipline may earn an academic minor in Portuguese by taking 12 semester hours of course work in the language at the level of POR 3420 or above, and six additional hours in Portuguese or in approved courses in a related discipline, such as linguistics or the civilization of Portuguese-speaking peoples.

Minor in General Translation Studies

In order to obtain an academic minor in General Translation Studies, a student takes 12 semester hours in translation/interpretation courses (FOT, FRT, or SPT prefix), with grades of B or better, and nine additional hours in courses of immediate relevance to the program, to be approved by the Director of the program. Normally these will be selected from among offerings in Political Science, Economics, International Relations, Sociology, Anthropology, Computer Science or Modern Languages. At least two of them should be taken outside of Modern

Languages. Courses in basic and intermediate instruction shall not be counted for the minor.

Minor in Spanish Language and Culture

Required Credits for Minor

Fifteen credits of Core Courses and three credits of electives. Total: 18 semester hours.

Core Courses

SPN 3301	Review Grammar and Writing	3
	or	
SPN 3341	Advanced Spanish for Native Speakers	3
SPN 3733	General Linguistics (or equivalent)	3
SPW 3820	Peninsular Spanish Literature	3
SPW 3130	Spanish American Literature	3
One SPN course on Culture		3

Elective Courses

Three credits in Spanish at the 3000 or 4000 level in language, literature, culture, or translation/interpretation. Students who have advanced proficiency in Spanish may replace SPN 3422 Advanced Grammar and Composition I or SPN 2341 Advanced Spanish for Native Speakers with another upper-level Spanish elective with the written permission of their advisors.
SPN 3733 (or equivalent) is a prerequisite for other linguistics offerings.

Basic Language Instruction

The department offers three-semester sequences of instruction in beginning and intermediate Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Portuguese, Spanish, Russian, and beginning instruction in other languages.

The courses in basic language instruction are designed primarily for persons wishing to acquire conversational ability in a foreign language; but they provide training in all four language skills listening, speaking, reading, and writing. Students are advised to consult the Departmental course listing for specific sections.

Course Descriptions

Definition of Prefixes

ARA-Arabic Language; CHI-Chinese Language; FOL-Foreign Languages; FOT-Foreign Languages in Translation; FOW-Foreign Languages, Comparative Literature; FRE-French Language; FRT-French Translation; FRW-French Literature (Writings); GER-German Language; GET-German Translation; HBR - Hebrew; ITA-Italian Language; ITT-Italian Translation; JPN-Japanese Language; LIN-Linguistics; POR-Portuguese Language; POW-Portuguese Literature (Writings); PRT-Portuguese Translation; RUS-Russian Language; SPN-Spanish Language; SPT-Spanish Translation; SPW-Spanish Literature (Writings).
(See English listing for additional Linguistics courses.)

ARA 3132 Arabic I (5). Provides training in the acquisition and application of basic language skills.

ARA 3133 Arabic II (5). Provides training in the acquisition and application of basic language skills.

ARA 3202 Intermediate Arabic (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: ARA3133 or equivalent.

CHI 3132 Chinese I (5). Provides training in the acquisition and application of basic language skills.

CHI 3133 Chinese II (5). Provides training in the acquisition and application of basic language skills.

CHI 3202 Intermediate Chinese (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: CHI 3133 or equivalent.

CHI 3203 Intermediate Chinese II (3). To improve students' speaking, writing, listening, reading skills in Chinese. Students learn how to use useful expressions of experience and thought. Prerequisite: CHI 3202.

CHI 3440 Business Chinese (3). Introduces the culture, economy, and commerce of present-day China. Emphasis will be placed on various business situational dialogues and communicative writing.

FIL 4881 Hispanic Culture: Women and Film (3). Images and roles of Hispanic women in Latin America, Spain and the United States. Discussion, analysis, and writing. Course aims to enhance students' understanding of women in Hispanic culture through films and readings.

FIL 5825 Spanish Film (3). The history of film in Spain and discussions of films by the most important 20th Century directors.

FIL 5846 Latin American Film (3). The study of 20th Century films and documentaries produced by leading Latin American directors. Films are examined in relation to Latin American Society and its literary creations.

FOL 1000 Elementary Foreign Language (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. For languages not often taught. This course is not part of a series. No prerequisites.

FOL 3013 Language Skills for Professional Personnel (3). The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

FOL 3732 Romance Linguistics (3). The common and distinctive Romance features. Survey of linguistic geography and internal/external influences.

FOL 3905 Independent Study (1-3). Project, field experience, readings, or apprenticeship.

FOL 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and teacher.

FOL 3949 Cooperative Education in Modern Languages (3). A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

FOL 3955 Foreign Study (3-12). Study abroad credits. Individual cases will be evaluated for approval.

FOL 4905 Independent Study (1-3). Project, field experience, readings, or research.

FOL 4930 Special Topics (3). Independent readings, research, or project.

FOL 4935 Senior Seminar (3). Topics and approach to be determined by students and instructor.

FOL 4949 Cooperative Education in Modern Languages (3). A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend one or two semesters fully employed in industry or government in a capacity related to the major. Prerequisites: Permission of Cooperative Education Program and major department.

FOL 4958 Foreign Study: Advanced Language Literature (VAR 3-12). Study abroad credits. Individual cases will be evaluated for approval.

FOL 5735 Romance Linguistics (3). The common and distinctive Romance features. Survey of linguistic geography and internal/external influences.

FOL 5906 Independent Study (1-3). Project, field experience, readings, or research.

FOL 5945 Foreign Exchange Internship (0). Foreign exchange students perform graduate research in the Department of Modern Languages and English as a corequisite to their assistantship in the Modern Languages Department. Prerequisite: Admission to the Foreign Exchange Program.

FOT 2120 Literature in Translation (3). Masterpieces of French literature in English. Comparative use of the original text. Discussion and interpretation.

FOT 3800 Translation/Interpretation Skills (3). Emphasis on basic principles and practice application.

FOT 3810 Creative Writing/Translation (3). Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation.

FOT 4130 European Literature in Translation (3). For students proficient in more than one foreign language. Content and focus to be determined by student and instructor.

FOT 4801 Professional Translation/Interpretation (3). Techniques and resources for professional translation and interpretation. Prerequisite: FOT 3800.

FOT 5125 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

FOT 5805 Translation/Interpretation Arts (3). The language barrier and translation and interpretation. Types, modes, and quality of T/I: philological, linguistic, and socio-linguistic theories. History of T/I from Rome to date. The impact of T/I on Inter-American developments. Prerequisites: Graduate standing or permission of the instructor.

FOW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment.

FOW 3540 Bicultural Writings (3). Experiment in linguistic pluralism. Content and focus to be determined by the international community.

FOW 3580 Intellectual History (3). The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.

FOW 3582 Literature of Reform (3). The consciousness of change in verbal art.

FOW 3584 Literature of Repression (3). The consciousness of constraints, their adoption and/or rejection in verbal art.

FOW 4152 European Literature in Translation (3). For students proficient in more than one foreign language. Content and focus to be determined by students and instructor.

FOW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FOW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.

FOW 4790 The Literary Generation (3). The real and apparent shared ideals of an artistic generation, its influence and range.

FOW 4810 Problems in Reading and Interpretation (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

FOW 5395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FOW 5545 Bicultural Writings (3). Experiment in linguistic pluralism. Content and focus to be determined by the international community.

FOW 5587 Comparative Studies (3). Cross-over and distinctiveness in a multi-language problem, period, or aesthetic.

FOW 5934 Special Topics in Language/Literature (3). Content and objectives to be determined by students and teacher.

FOW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. (Approval of the Department required.)

FRE 1013 Language Skills for Professional Personnel (1-3). The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

FRE 1115 Accelerated Basic French (5). Accelerated course for students who already have some basic knowledge of French. Encourages rapid acquisition by intensive exposure to the language. Prerequisites: At least one year of High School French or equivalent.

FRE 1130 French I (5). Course designed specifically for beginning university students with no previous language study. Emphasis on oral French and on acquiring basic language skills.

FRE 1131 French II (5). Emphasis on oral French and on acquiring basic language skills.

FRE 2200 Intermediate French (3). Provides intermediate training in the acquisition and application of

basic language skills. Prerequisites: FRE1131 or equivalent.

FRE 2241 Intermediate French Conversation (3). Development of oral skills through skits, debates, and hypothetical situations. Open to non-native speakers Prerequisites: FRE 1131 or equivalent.

FRE 2270 Foreign Study (3-12). Intermediate level. One semester full-time credit for foreign residence and study. Individual cases will be evaluated for approval.

FRE 2443 French for Business (3). Introduces the minor and non-major to the culture, economy, and commerce of modern-day France. Extensive practice in business writing and communication. Conducted in French. Prerequisite: FRE 1131.

FRE 3410 Advanced French Conversation (3). To develop oral proficiency skills and a greater awareness of French culture.

FRE 3413 Communication Arts (3). Develop communicative competence through intensive oral class work. Emphasis on ability to express ideas and appreciation of multiple aspects of French culture.

FRE 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

FRE 3421 Review Grammar/Writing II (3). Instruction and practice in expository writing in French, with emphasis on organization, correct syntax, and vocabulary building. Prerequisite: FRE 3420 or permission of the instructor.

FRE 3441 Advanced Business French (3). Provides intermediate training in the acquisition and application of business skills from an applied language vantage point. Prerequisites: FRE 2200 or permission of the instructor.

FRE 3500 History of French Civilization (3). Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a society, its ideas and its values. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRE 3504 Language and Culture (3). Emphasis on oral skill applied to contemporary culture, to enhance student's knowledge and understanding of French way of life in Francophone world. Emphasis is also placed on acquisition and intensive practice of vocabulary and grammar. Prerequisites: FRE 3410 or FRE 3420 or permission of the instructor.

FRE 3740 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem solving in syntax and phonetics, through the application of modern/ traditional methods.

FRE 3780 French Phonetics (3). An introductory course in French linguistics. Includes the International Phonetic Alphabet and a systematic inventory of all the sounds of French, with refinement exercises in the language laboratory.

FRE 3781 Intermediate French Phonetics (1). Pronunciation of French for non-majors. Includes an introduction to the International Phonetic Alphabet and a systematic review of the sounds of French. Prerequisites: FRE 1130 and FRE 1131.

FRE 3820 Dialectology (3). Definition and analysis. Problem-solving in dialect classification.

FRE 4391 French Cinema (3). In-class viewing and discussion of selected French films to develop knowledge and understanding of this important aspect of French culture from beginnings to the present. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRE 4422 Review Grammar/Writing III (3). A study of various aspects of forms and styles, with emphasis on expository writing in French. Prerequisite: FRE 3421 or permission of the instructor.

FRE 4470 Foreign Study: Advanced Language/ Literature (3-15). Full-semester credit for foreign residence and study/work. (Approval of Department required.)

FRE 4501 Contemporary French Society (3). Course designed primarily for French majors, advanced undergraduates and graduates. Examination of the cultural, ideological, socio-political and economic fabric of France from WWI to the present. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRE 4503 La Francophonie (3). Analysis of the different varieties of French spoken outside of France. Includes Quebec French, African French, and French Creoles. Also examines the political alliance of Francophone countries. Credit will not be given for both FRE 4503 and FRE 5508.

FRE 4791 French Phonology (3). Contrasts in the sound systems of English and French. Prerequisites: FRE 3780 or permission of the instructor.

FRE 4800 French Morphology (3). Contrasts in the morphology and syntax of English and French.

FRE 4840 History of the Language I (3). The internal and external history of the French language from Latin to Old French. Examination of some of the first texts written in French. Prerequisites: FRE 3780 or permission of the instructor.

FRE 4841 History of the Language II (3). External and internal history of the French language from 1400 to the present. Examination of first dictionaries and grammars of French. Survey of recent linguistic legislation concerning the French language.

FRE 4850 Structure of Modern French (3). Systematic study of the phonology, morphology, syntax, and lexicon of Modern French. Taught in English.

FRE 4935 Senior Seminar (3). Topic and approach to be determined by students and instructor.

FRE 5060 Language for Reading Knowledge I (3). Designed primarily for graduate students who wish to attain proficiency for M.A. and Ph.D. requirements. Open to any student who has no prior knowledge of the language.

FRE 5061 Language for Reading Knowledge II (3). Emphasis on translation of materials from the student's field of specialization. Prerequisites: FRE 5060 or equivalent.

FRE 5508 La Francophonie (3). Analysis of the different varieties of French spoken outside of France. Includes Quebec French, African French, and French Creoles. Also examines the political alliance of Francophone countries. Credit will not be given for both FRE 4503 and FRE 5508. Prerequisite: Graduate standing.

FRE 5735 Special Topics in Linguistics (3). Content to be determined by students and instructor. Prerequisite: Graduate standing.

FRE 5755 Old French Language (3). Introduction to the phonology, morphology, and syntax of the Old French language. Reading and analysis of the 12th and 13th century texts in their original. Comparison of major medieval dialects. Prerequisite: FRE 4840 or FRE 5845.

FRE 5845 History of the Language I (3). The internal and external history of the French language from Latin to Old French. Examination of some of the first texts written in French. Credit will not be given for both FRE 4840 and FRE 5845. Prerequisite: Graduate standing.

FRE 5846 History of the Language II (3). External and internal history of the French language from 1400 to the present. Examination of first dictionaries and grammars of French. Survey of recent linguistic legislation concerning the French language. Credit will not be given for both FRE 4841 and FRE 5846. Prerequisite: Graduate standing.

FRE 5855 Structure of Modern French (3). Systematic study of the phonology, morphology, syntax, and lexicon of Modern French. Taught in English. Credit will not be given for both FRE 4850 and FRE 5855. Prerequisite: Graduate standing.

FRE 5908 Independent Study (1-3). Project, field experience, readings, or research. Prerequisite: Graduate standing.

FRT 3800 Basic Translation Exercises (3). Emphasis on basic principles and practice application. Prerequisite: FRE 3421.

FRT 4801 Professional Translation (3). Techniques and resources for professional translation. Prerequisite: FRT 3800.

FRT 5805 Translation/Interpretation Arts (3). Techniques of professional translation and interpretation. Prerequisite: FRT 4801.

FRW 3200 French Literature I (3). Close reading and analysis of prose and poetry from the Middle Ages to the 17th Century. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3201 French Literature II (3). Close reading and analysis of French prose, theatre, and poetry, from the 18th to the 20th century. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3280 French 19th Century Novel (3). Four major novels by major 19th century novelists will be selected to illustrate the development of novelist techniques as well as of a different conception of the role of the novel that finally made it an important literary genre. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3300 French Comedies (3). A study in French comedies from the 15th century to the 19th century, with special emphasis on Moliere's plays. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3323 French 19th Century Drama (3). Plays will be chosen to illustrate various literary movements in 19th century French drama: Romanticism, Realism, Naturalism, and Symbolism. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3370 French 19th and 20th Century Short Stories (3). Great short stories by Maupassant, Merimee, Flaubert, Camus, and Sartre will be studied to familiarize the student with literary criticism by a close reading and analysis of short texts. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3532 French Romantic Literature (3). A study of French Romantic generation through the works of Lamartine, Hugo, de Musset, etc. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3810 Literary Analysis (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3905 Independent Study (3). Project, field experience, readings, or apprenticeship. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and instructor. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4123 Travel, Exile, and Cross-Cultural Encounters (3). Drawing on writings from the turn of the century to the present, explores the themes of exile and escape, of cultural and visual appropriations, the repetition and deconstruction of exotic cliches. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4212 French Classical Prose (3). Study of major works of 17th century French authors such as Descartes, Pascal, La Rochefoucauld, La Bruyere, etc. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4218 18th Century French Prose (3). Major works by the 18th century French philosophes that illustrate the evolution of socio-political and aesthetic thought leading to the French Revolution. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4272 French Novels from the Classical Period (3). A study of major 17th and 18th century French novels. Course conducted in French. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4281 French 20th Century Novel (3). A detailed analysis of modern novels, and a general examination of the intellectual currents which these novels illustrate or express (e.g. surrealism, existentialism, nou-veau roman, post-modernism. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4310 Seventeenth-Century French Drama (3). A study of French classical aesthetics through the plays of Corneille, Moliere, and Racine. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4324 French 20th Century Theatre (3). Focuses on the scope and variety of contemporary French theatre from Claudel, through existentialism and the theatre of the absurd, to Cixous and Cesaire. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama). Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4410 French Medieval Literature (3). A study in different literary forms prevalent during the 12th and 15th centuries. Read in modern French; course will be conducted in French. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4420 Sixteenth-Century French Literature (3). A study of major authors of the French Renaissance, Rabelais, Ronsard, Montaigne, etc. Course conducted in French. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4583 Women Writers in French (3). Drawing on the writings of women authors in French, this course explores topics such as: the effects of narrative techniques on subject formation, the poetics of silence and of revolt, sexual difference versus cultural difference. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/ common features of expressive media. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4750 Francophone Literature of Africa (3). Introduction to the Francophone literatures of Africa; study of a literary tradition in French, with special emphasis on post-World War II writers. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4751 Francophone Literature in the Caribbean (3). Introduction to the Francophone literature of the Caribbean; study of a literary tradition in French, with special emphasis on post-World War II writers. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4905 Independent Study (1-3). Project, field experience, readings, or research. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4930 Special Topics (3). Independent readings, research, or project. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 5395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama). Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 5934 Special Topics in Language Literature (3). Content and objectives to be determined by student and instructor. Prerequisite: Graduate standing.

FRW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. Prerequisite: Graduate standing.

GER 1130 German I (5). Provides training in the acquisition and application of basic language skills.

GER 1131 German II (5). Provides training in the acquisition and application of basic language skills.

GER 2210 Intermediate German (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: GER 1131 or equivalent.

GER 2240 German Intermediate Conversation (3). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisites: GER 1131 or equivalent.

GER 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

GER 4905 Independent Study (1-3). Project, field experience, readings, or research.

GER 4930 Special Topics (3). Independent readings, research, or project.

GER 5060 German for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.

GER 5061 German for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisites: GER 5060 or the equivalent.

GET 3100 Literature in Translation (3). Masterpieces in German literature in English. Comparative use of the original text. Discussion and interpretation.

HAI 3213 Accelerated Haitian Creole (3). Emphasis on oral skills, contemporary language, and culture.

HAI 3214 Accelerated Intermediate Haitian Creole (3). Builds on accelerated course by continuing and expanding communicative activities. Prerequisites: Accelerated Haitian or permission of the instructor.

HAI 3370 Haiti: Study Abroad (3). Orientation to Haiti's history, geography, religious practices, and social customs through classroom instruction, reading, and discussion, culminating in a two week tour of Haiti.

HAI 3500 Haiti: Language and Culture (3). Provides, from a multidisciplinary perspective, a general understanding of the Haitian culture and language.

HAI 5235 Haitian Creole Seminar (3). A study of the phonological and morpho-syntactic structures of Haitian Creole. Patterns of language usage and attitude. Prerequisite: Graduate standing.

HBR 1130 Hebrew I (5). Provides training in the acquisition and application of basic language skills.

HBR 1131 Hebrew II (5). Provides training in the acquisition and application of basic language skills.

HBR 2200 Intermediate Hebrew (3). Provides training in the acquisition and application of basic language skills. Prerequisites: HBR 1131 or equivalent.

ITA 1130 Italian I (5). Provides training in the acquisition and application of basic language skills.

ITA 1131 Italian II (5). Provides training in the acquisition and application of basic language skills.

ITA 2210 Intermediate Italian (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: ITA 1131 or equivalent.

ITA 2240 Italian Intermediate Conversation (3). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisites: ITA 1131 or equivalent.

ITA 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

ITA 3421 Review Grammar/Writing II (3). Instruction and practice in expository writing in Italian, with emphasis on organization, correct syntax, and vocabulary building. Prerequisites: ITA 3420 or permission of the instructor.

ITA 4905 Independent Study (1-3). Project, field experience, readings, or research.

ITA 4930 Special Topics (3). Independent readings, research, or project.

ITT 3110 Literature in Translation (3). Masterpieces of Italian literature in English. Comparative use of the original text. Discussion and interpretation.

JPN 1130 Japanese I (5). Provides training in the acquisition and application of basic language skills.

JPN 1131 Japanese II (5). Provides training in the acquisition and application of basic language skills.

JPN 3110 Introduction to Kanji (3). This course introduces students to the fundamental structure of Kanji (Chinese characters), including a comprehensive review of Kana system. Prerequisite: JPN 1130.

JPN 3140 Japanese for Business (3). A study of Japanese language in a context of Japanese business practices, values and customs.

JPN 3202 Intermediate Japanese I (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: JPN 1131 or equivalent.

JPN 3203 Intermediate Japanese II (3). To help students maintain and further improve their speaking, writing, listening, and reading skills in Japanese in more complex situations. Students learn how to use useful expressions of experience and thought in advanced level of Japanese. Prerequisite: JPN 3202.

JPN 3242 Japanese Conversation and Composition I (3). Helps students develop their proficiency in speaking, reading and writing through reading and discussion of Japanese texts on various topics. Prerequisite: JPN 3202.

JPN 3243 Japanese Conversation and Composition II (3). Continuation of Conversation and Composition. Provides intermediate training in the acquisition and application of the language skills. Prerequisite: JPN 3242.

JPN 3400 Advanced Japanese I (3). Continuation of Intermediate JPN II which provides the beginning level of advanced training in the acquisition and application and application of the language skills. Prerequisites: JPN 1130, JPN 1131, JPN 3202, JPN 3203.

JPN 3401 Advanced Japanese II (3). Continuation of Advanced Japanese I which provides advanced training in the acquisition and application of the language skills. Prerequisites: JPN 1130, JPN 1131, JPN 3203, JPN 3203, JPN 3400.

JPN 3420 Japanese through Technology (3). Provides training in the acquisition and application of the language skills in reading, listening and typing. Prerequisites: JPN 1130, JPN 1131.

JPN 3500 Japanese Culture and Society (3). To give students sociocultural knowledge and well-rounded understanding of the culture and society in Japan. Students also have an opportunity to experience Japanese traditional arts including Japanese Calligraphy.

JPN 4930 Special Topics in Japanese (3). Topics will be selected to meet academic needs for studies doing research on Japanese language. Prerequisite: Permission of the instructor.

JPT 3521 Japanese Literature and Cinema (3). An introduction to modern Japanese literature and cinema which compares literary and cinematic approahces by focusing on Japanese society, culture and aesthetic sense.

JPW 4130 Reading Japanese Literature (3). Reading and analysis of selected literary texts in contemporary Japanese with an introduction to poetry (haiku and waka). Prerequisites: JPN 3401 or permission of instructor.

JPW 4131 Reading Japanese Non-Fiction (3). Advanced writing and reading of non-fictional text focusing on Japanese culture and society. Prerequisites: JPN 3401 or permission of instructor.

LIN 3010 General Linguistics (3). Examination and synthesis of the concepts and perspectives of major contributions to language theory. Equivalent to SPN 3733. Students who take SPN 3733 may not receive credit for LIN 3010 or LIN 3013.

LIN 3200 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 3610 Dialectology (3). Definition and analysis. Problem-solving in dialect classification. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4326 Contrastive Phonology (3). For students proficient in more than one foreign language. Choice of languages to be determined by students and instructor. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4433 Contrastive Morphology (3). For students proficient in more than one foreign language. Content and emphasis to be determined by students and instructor. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4620 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4624 Bilingualism and Language Policies (3). Linguistic diversity and language policies in North America. The sociolinguistic situation of selected heritage speakers, particularly Hispanic and Asian groups, and issues in bilingualism. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4702 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/ traditional methods. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4722 Problems in Language Learning (3). Primarily designed for prospective teachers, but open to all interested students. The course will aim to devise approaches to difficulties commonly experienced in syntax, usage, reading and comprehension. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4931 Special Topics in Linguistics (3). Provides the opportunity for students and instructor to explore topics not included in the regular course offerings. Content to be determined.

LIN 5207C Acoustic Phonetics (3). Introduction to principles of acoustic and instrumental phonetics, including the physics of speech sounds and use of the sound spectrograph and other instruments. Prerequisites: LIN 3010, LIN 3013, or SPN 3733, or equivalent, plus one additional course in phonetics or phonology. Corequisite: One of the prerequisites may be counted as a corequisite.

LIN 5601 Sociolinguistics (3). Principles and theories of linguistic variation with special attention to correspondences between social and linguistic variables.

LIN 5603 Language Planning: Linguistic Minority Issues (3). Introduction to the field of language planning. Minority linguistic issues in developing and developed nations: official languages, endangered languages, and language as problem and/or resource.

LIN 5604 Spanish in the United States (3). An examination of the sociolinguistic research into Spanish in the U.S.: varieties of Spanish, language attitudes, language contact and change, and aspects of language use. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 5613 Dialectology (3). The geography of language variation: linguistic geography, atlases, national and regional studies. Dialectology within a modern sociolinguistic frame work; research approaches.

LIN 5625 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals.

LIN 5720 Second Language Acquisi-tion (3) Research, theories, and issues in second language acquisition. Topics include the Monitor Model, the role of the first language, motivation, age, individual differences, code-switching, and the environment; affective variables and attitudes.

LIN 5725 Seminar: Issues in Language Learning (3). Seminar in applied linguistics to serve as introduction to theory, research, and practice in language. Examines difficulties experienced in learning syntax, oral comprehension, usage, etc. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 5760 Research Methods in Language Variation (3). Research in sociolinguistics, dialectology, bilingualism: problem definition, instrument design, data collection and analysis, including sampling techniques and statistical procedures. Prerequisites: LIN 5601, LIN 5625, LIN 5613 or other course in variation.

LIN 5825 Pragmatics (3). Study of the relationships between language form, meaning, and use. Special emphasis on speech act theory. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.
(See English listing for additional Linguistics courses.)

POR 1000 Elementary Portuguese (3). Emphasis on oral skills, contemporary language, and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

POR 1130 Portuguese I (5). Provides training in the acquisition and application of basic language skills.

POR 1131 Portuguese II (5). Provides training in the acquisition and application of basic language skills.

POR 2200 Intermediate Portuguese (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: POR 1131 or equivalent.

POR 3202 Accelerated Portuguese I (5). Accelerated course for students fluent in Spanish. Encourages rapid acquisition by intensive exposure to the language through immersion activities, videos, and culture.

POR 3233 Accelerated Portuguese II (5). Accelerated course for students fluent in Spanish. Builds on Accelerated Portuguese I by continuing and expanding communicative activities. Prerequisites: POR 3202 or permission of the instructor.

POR 3244 Portuguese Intermediate Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisites: POR 1131, POR 3233 or equivalent.

POR 3400 Advanced Oral Communication (3). Development of oral skills through a variety of activities: Readings and recitations, public speaking, debate, skits, video production and drama. Open to native and non-native speakers. Prerequisite: Oral communication ability in Portuguese.

POR 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

Prerequisites: POR 1131, POR 3233 or equivalent, or permission of the instructor.

POR 3421 Review Grammar/Writing II (3). Examination of grammatical theory; discussion of the modern essay. Practice in the detection and correction of errors in usage. The course will focus on current international events as content for informal talks and compositions. Prerequisites: POR 3420 or permission of the instructor.

POR 3440 Portuguese for Business (3). Presents the special language needs for conducting business in Portuguese, with emphasis on the commerce and culture of modern Brazil. Practice in correspondence, documents, and presentations. Prerequisites: POR 3202, POR 3233 or equivalent.

POR 3500 Luso-Brazilian Culture (3). Open to any student who understands Portuguese. The development of Portuguese speaking civilizations, with emphasis on either Portugal or Brazil: history, art, music, daily life, impact on other cultures.

POR 3930 Special Topics in Language Linguistics (3). Readings, research, and discussion of topics in Portuguese language or linguistics to be determined by students and instructor.

POR 4470 Foreign Study: Advanced Language Literature (VAR). Up to a full semester credit for foreign residence and study/work. (Approval of Department required.)

POR 4480 Twentieth Century Brazilian Novel (3). Emphasis on a particular period and/or region, such as the northeast from 1930-1960: Jorge Amado, Raquel de Queiroz, Graciliano Ramos, Lins de Rego; or similar focus. Prerequisites: POR 1131, POR 3233 or equivalent.

POW 3284 Brazilian Short Story (3). Short stories by major Brazilian authors serve to expand students' reading ability, help them become familiar with modern Brazilian life, and learn to approach this literacy form critically. Prerequisites: POR 1131, POR 3233 or equivalent.

POW 4390 Brazilian Cinema (3). An examination of Brazilian films and culture from Cinema Novo to the present. Focuses on the northeast, urban society, magic and the Amazon. Taught in Portuguese.

POW 4701 Masterworks of Brazilian Literature (3). Readings from the most important authors of Brazil, in several genres, presented in a chronological framework. Authors include M. de Assis, M. de Andrade, M. Bandeira, C. Lispector, etc. Prerequisites: POR 1131, POR 3233 or equivalent.

POW 4905 Independent Study (1-3). Project, field experience, readings, or research.

POW 4930 Special Topics (3). Independent readings, research, or project.

PRT 3401 Literature in Translation (3). Masterpieces of Portuguese literature in English. Comparative use of the original text. Discussion and interpretation.

PRT 3800 Portuguese Translation I (3). Review of theories and processes. Extensive practice in translating a variety of short texts, with emphasis on accuracy. Prerequisites: PRT 3810 or permission of the instructor.

PRT 3810 Introduction to Portuguese Translation and Interpretation (3). Fundamentals of translation processes, contrastive analysis of structures in Portuguese and English. Exercise in the accurate rendition of ideas from one language to the other.

PRT 3812 Portuguese Interpretation I (3). Beginning interpretation with emphasis on consecutive and sight translation. Memory development, note-taking, techniques of public speaking, accent reduction. Prerequisites: PRT 3810 or permission of the instructor.

PRT 4391 International Perspectives in Brazilian Cinema (3). Addresses cinema production in Brazil in an international context, with special emphasis on the post-Embrafilme era and international co-production.

PRT 4801 Portuguese Translation II (3). Translation of medium-length texts covering a range of specific topics and prose styles with attention to both accuracy and style. Prerequisites: PRT 3810 or permission of the instructor.

PRT 4802 Portuguese Translation III (3). Emphasis on technical and literary translation; development of special glossaries; stylistic and grammatic challenges. Prerequisites: PRT 4801 or permission of the instructor.

PRT 4813 Portuguese Interpretation II (3). Continued work with consecutive interpretation but emphasizes the simultaneous mode, including research and graded laboratory practice. Work with the speaking voice. Prerequisites: PRT 3812 or permission of the instructor.

PRT 4814 Portuguese Interpretation III (3). Simultaneous conference interpreting: extensive class and laboratory practice and field experience. Prerequisites: PRT 4813 or permission of the instructor.

RUS 1130 Russian I (5). Provides training in the acquisition and application of basic language skills.

RUS 1131 Russian II (5). Provides training in the acquisition and application of basic language skills.

RUS 2210 Intermediate Russian (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: RUS 1131 or equivalent.

SPN 1000 Elementary Spanish (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

SPN 1030 Elementary Spanish for Medical Personnel (5). Conversational elementary Spanish for medical personnel. Recommended for non-native speakers of Spanish who are in nursing or other health-related professions.

SPN 1130 Spanish I (5). Course designed specifically for beginning university students with no previous language study. Emphasis on oral Spanish and on acquiring basic language skills.

SPN 1131 Spanish II (5). Emphasis on oral Spanish and on acquiring basic language skills.

SPN 2200 Intermediate Spanish I (3). Provides intermediate training in the acquisition and application of

basic language skills. Prerequisites: SPN 1131 or equivalent.

SPN 2201 Intermediate Spanish II (3). Last course of a four-semester sequence which implements a proficiency-oriented approach. Focuses on the development of listening and reading comprehension skills, and encourages maximum oral interaction and the practice of writing.

SPN 2210 Oral Communications Skills (3). Development of oral skills through skits, debates, and contextualized communication. Prerequisites: SPN 1131 or equivalent.

SPN 2230 Intermediate Readings in Spanish (3). Provides opportunities to develop fluency. Emphasis on selected literary and /or cultural readings; films and group activities intended to stimulate communication and enhance an understanding of Hispanic culture. Prerequisites: SPN 1131 or equivalent. Corequisite: SPN 2200 recommended.

SPN 2240 Intermediate Spanish Conversation (3). This course is designed to help students maintain and increase their ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisites: SPN 1131 or equivalent.

SPN 2270 Foreign Study (6). Intermediate level. One semester full-time credit for foreign residence and study. Individual cases will be evaluated for approval.

SPN 2330 Advanced Readings in Spanish (3). Further develops, at an advanced level, appropriate reading, oral, and writing skills. Emphasis on advanced cultural and literary readings by Spanish and Spanish American authors. Prerequisites: SPN 2230 or permission of instructor.

SPN 2340 Intermediate Spanish for Native Speakers (3). Improvement of spelling, grammar, vocabulary, reading, writing, and oral skills for Hispanic bilinguals educated in the U.S., with less than two years of formal training in Spanish but whose mother tongue is Spanish. Prerequisite: Ability to understand Spanish.

SPN 2346 Intermediate Spanish for Native Speakers II (3). Develop cultural and linguistic competence through intensive oral and written work. Emphasis will be given to reading and writing skills. Prerequisite: SPN 2340.

SPN 3013 Language Skills for Professional Personnel (3). The course is geared to the special linguistic needs of the community groups (medical, business, technical, etc.).

SPN 3031 Intermediate Spanish for Medical Personnel (3). Provides intermediate training in the acquisition and application of medical language skills. Prerequisites: SPN 1030 or permission of the instructor.

SPN 3301 Review Grammar and Writing (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language. For non-native speakers.

SPN 3341 Advanced Spanish for Native Speakers (3). Improvement of literacy skills through grammar review, composition, and selected readings of representative Hispanic writers, including Cuban, Puerto Rican, and Chicano authors. For U.S. Hispanic bilinguals with at least two years of formal training in Spanish. Prerequisites: SPN 2340 or permission of the instructor.

SPN 3401 Advanced Conversation (3). Improvement of oral proficiency and listening comprehension skills, correction of accent, vocabulary building. Use of small group conversation, pronunciation tapes, and varied outside readings.

SPN 3410 Advanced Oral Communication (3). Development of oral skills through a variety of speaking and conversational activities: public speaking, debate, drama, recitation. For native speakers and advanced non-natives. Prerequisite: Oral ability in Spanish.

SPN 3413 Communication Arts (3). Oral interpretation and dramatic reading. Original and non-original texts will be the content of the course. Study of shared modes of experience and their individual linguistic expression in an acquired language.

SPN 3422 Advanced Grammar and Composition I (3). To consolidate the student's command of oral and written Spanish. Advanced readings of authentic materials. Preparation and documentation of written monographs. For natives and advanced non-natives. Prerequisites: SPN 2341, SPN 3301 or equivalent.

SPN 3423 Advanced Grammar and Composition II (3). Focuses on advanced writing and reading skills. Preparation and documentation of written monographs. Prerequisite: SPN 3422.

SPN 3440 Spanish Business Composition/ Correspondence (3). Training in the special writing needs of business: letter-writing, memoranda, brochures, advertising, proposals, declarations, government documents, etc.

SPN 3520 Spanish American Culture I (3). Introduction to the major artistic and cultural phenomena in Latin America. Art, music, film, and literature will be discussed in their cultural context. Prerequisite: Ability to understand Spanish at advanced level.

SPN 3521 Spanish American Culture II (3). Study of the evolution of national identity in Latin America, from the 19th Century to the present. Prerequisites: Spanish American Culture I or permission of instructor.

SPN 3702 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/traditional methods. Prerequisites: LIN 3010 or equivalent. (Conducted in Spanish).

SPN 3733 General Linguistics (3). Examination and synthesis of the concepts and perspectives of major contributions to language theory. (Conducted in Spanish.) Equivalent to LIN 3010. Students who take LIN 3010 may not receive credit for SPN 3733 or LIN 3013.

SPN 3780 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 3820 Dialectology (3). Definition and analysis. Problem-solving in dialect classification. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 4312 Introduction to Spanish Syntax (3). An introduction to Spanish syntax. Topics include an introduction to syntactic analysis and syntactic phenomena of Spanish. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 4470 Foreign Study: Advanced Language Literature (12). Full semester credit for foreign residence and study/work. (Approval of the Department required.)

SPN 4500 Spanish Culture (3). Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a society, its ideas and its values.

SPN 4790 Contrastive Phonology (3). Contrasts in the sound systems of English and Spanish. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 4802 Contrastive Syntax (3). Contrasts in the grammatical systems of English and Spanish with emphasis on structures with equivalent meanings. Recommended for students of translation and interpretation. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent or permission of the instructor.

SPN 4822 Hispanic-American Socio-linguistics (3). Language and society in Latin America. Sociolinguistic theory followed by consideration of specific language problems in Spanish and Portuguese speaking areas of the Americas. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 4840 History of the Language (3). The internal and external history of language development. Examination of model texts from key periods of evolution. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 4905 Independent Study (1-3). Project, field experience, readings, or research.

SPN 4930 Special Topics in Linguistics (3). Provides the opportunity for students and instructor to explore topics not included in the regular course offerings. Content to be determined.

SPN 4936 Senior Seminar (3). Topic and approach to be determined by students and instructor.

SPN 5060 Language for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.

SPN 5061 Language for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisites: SPN 5060 or the equivalent.

SPN 5525 Spanish American Culture (3). A graduate survey of the major artistic phenomena in Latin America. Art, music, film, and literature will be discussed in their cultural context. Prerequisites: Graduate standing and permission of the instructor.

SPN 5536 Afro-Cuban Culture (3). Explores the role played by blacks in Cuban culture. Issues studied include: Afro-Cuban religions, languages, and music, as well as the Afro-Cuban presence in literature and the arts.

SPN 5537 Special Topics in Afro-Hispanic Culture (3). Close examination of various topics related to the culture of African diaspora groups in the Hispanic world.

SPN 5705 The Structure of Spanish (3). An introduction to Spanish linguistics. Topics include Spanish phonetics, phonology, morphology, and syntax. Students who have previously taken Syntactic Structures of Spanish and/or Sound Structure of Spanish will not receive credit for this course. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5725 Syntactic Structures of Spanish and English (3). An in-depth study of syntactic structures in Spanish and English, with an emphasis on how linguistic theory can account for the similarities and differences between the two languages. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5736 Spanish as a Heritage Language: Acquisition and Development (3). Examines applied linguistics research and practice concerning acquisition, retention and literacy development of Spanish as a minority or heritage language in the United States. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent or permission of instructor.

SPN 5805 Morphological Structures of Spanish and English (3). A survey of the morphologies of Spanish and English. Topics include the difference between isolating and synthetic languages, rich vs. impoverished agreement, and syntactic ramifications of morphology. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5807 Syntactic Structures of Spanish (3). The study of syntactic structures in Spanish, topics include different syntactic approaches to current issues in Spanish syntax. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5824 Dialectology of the Spanish Caribbean (3). Study of varieties of Spanish used in the Caribbean area, including Miami-Cuban Spanish. The course will take historical and contemporary perspectives and will involve research among informants in South Florida. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5845 History of the Language (3). Historical development of the Spanish language, primarily from the point of view of internal linguistic change. Spanish as an example of general processes of language development. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

SPN 5908 Independent Study (1-3). Project, field experience, readings, or research.

SPT 3110 Literature in Translation (3). Masterpieces of Hispanic literature in English. Comparative use of the original text. Discussion and interpretation.

SPT 3800 Foundations to Translation Skills (3). Techniques of translation, in Spanish and English, applied to law, business, technology, and literature.

SPT 3812 Foundations of Interpreting (3). Exercises in sight translation, consecutive and simultaneous interpretation in Spanish and English. Theory and practice.

SPT 4400 African Presence in Latin American Literature (3). Studies a selection of relevant Latin American literary works (in translation) dealing with the effects of African culture in Spanish-American and Brazilian literatures.

SPT 4801 Translation Practica (3). Translation of media, literary, and scientific texts.

SPT 4802 Practica in Oral Translation and Interpretation (3). Sight translation into and out of English. Introduction to the study of terminology. Prerequisites: SPT 3812 or permission of the instructor.

SPT 4803 Practica in Legal Translation (3). Provides advanced training in translating most commonly used legal documents in both civil and criminal procedures.

SPT 4804 Practice in Legal Interpretation (3). Training in consecutive and simultaneous interpretation of both civil and criminal legal proceedings before Federal and State courts.

SPT 4805 Translation in Communication Media (3). Provide insight into the techniques of translation of advertising, public relations and publicity materials to be used in the mass media such as print and broadcasting.

SPT 4806 Oral Skills for Interpreters (3). Voice production in sight translation, consecutive and simultaneous interpretation. Vocal projection, enunciation and phonetics, theory and practice. Extensive exercises in vocal control. Use of sound equipment. Prerequisite: SPT 3812.

SPT 4807 Practica in Business Translation (3). Business and language translation and the business world. Principles, techniques, and methods of business translation. Extensive practical exercises in translating routine business documents from English to Spanish and vice versa. Prerequisite: SPT 3800.

SPT 4808 Practica in Technological Translation (3). Language and technology. The translator in the technological world. Principles, techniques, and methods of technological translation. Extensive practical exercises. Prerequisite: SPT 3800.

SPT 4809 Practica in Medical Translation (3). Medical language. The translator and the medical world. Principles, techniques and methods of medical translation. Extensive practical exercises in translating routine medical documents from English to Spanish and vice versa. Prerequisite: SPT 3800.

SPT 4813 The Interpreter and Language (3). The interpreter as a linguistics expert. The stylistic levels of language. Legal jargon and street language in English and Spanish. Dialectal problems. Practical and ethnical problems. Prerequisite: SPT 3812.

SPT 4814 Conference Interpreting (3). Interpreting for international conferences and for diplomacy. Intensive practice in simultaneous interpretation. Prerequisite: SPT 3812.

SPT 4820 Computer-Aided Translation (3). The translating machine and computer-aided translation. Machine operation. Selected applications of computer translating texts from various disciplines. Correction of translated texts with computers. Prerequisites: SPT 3800, CDA 2310, and permission of director of program.

SPT 4830 Interpreting for Business (3). The principles and techniques of interpreting in the context of a bilingual (Spanish/English) business setting. Consecutive, simultaneous interpretation and sight translation of business matters. Prerequisites: SPT 3800, SPT 3812 or permission of the instructor.

SPT 4833 Advanced Practica in Medical Translation (3). Provides advanced training in the practice and theory of medical translation using the Internet as a fundamental tool. The course material is presented completely online and requires the student to become familiar with use of the internet as an essential instrument for investigation. Prerequisite: SPT 4809.

SPT 4940 Judicial Translation-Interpretation Internship (3). Students will spend a semester working in state and federal courts under the supervision of a professor, in order to practice in situations in what they have learned. Prerequisites: SPT 3800, SPT 3812, SPT 4801, SPT 4803, SPT 4804, SPT 4806, and SPT 4807.

SPT 4941 Professional Translation-Interpretation Internship (3). Students will spend a semester working in state and federal courts under the supervision of a professor, in order to practice in situations what they have learned. Prerequisites: SPT 3800, SPT 3812, and permission of the instructor.

SPT 4942 Medical Interpreting (3). Training medical interpretation, including ethics, professional standards, and roles of the medical interpreter. Extensive practice with authentic materials. Prerequisite: Bilingual students only (English/ Spanish).

SPT 5118 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

SPT 5715 Hispanic Women Writers in Translation (3). Readings and analysis of Spanish and Spanish American women writers in translation. Emphasis on cultural and linguistic considerations involved in the translation of literary texts. Prerequisites: Graduate standing or permission of the instructor.

SPW 3130 Spanish American Literature (3). Close reading and analysis of prose, poetry and drama. Selections from Spanish American Literature. Prerequisites: SPN 3422 or equivalent and oral and written proficiency in Spanish.

SPW 3323 Garcia Lorca's Theatre (3). Readings from representative plays by Spain's finest dramatist of the 20th century, including his three well-known tragedies and a number of short comic plays. Discussion of such themes as social and individual justice and freedom; passion and repression; and the role of poetry in the theatre. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3324 Contemporary Spanish Drama: Buero Vallejo (3). Chronological readings from plays written

between 1949-1980. Emphasis on dramatic reading. An examination of the evolution of dramatic art in the contexts of censorship and freedom. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3342 Twentieth Century Spanish Poets (3). Readings from selected poets of the 20th century, such as Antonio Machado, Miguel Hernandez, Damaso Alonso, and Rafael Alberti. Close examination of the poems representative of these poets, and their contribution to the development of Spanish poetry from the Generation of 1898 to the middle of the 20th century. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3371 The Latin American Short Story (3). Readings from the 19th century authors and such 20th century masters as Borges, Cortazar, Cabrera Infante, Garcia Marquez, and Rulfo. Examination of short-story techniques and of such themes as social satire, the nature of reality, reason, and irrationally. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3392 Cuban Culture Through Cinema (3). The evolution of popular culture in Cuba as expressed in films from the 1930s to the present.

SPW 3423 Masterworks of the Golden Age (3). Readings from selected masterpieces of the Spanish Renaissance and Baroque, such as La Celestina, Lazarillo de Tormes, and the short novels of Cervantes. Emphasis on satire and the representation of such human problems as freedom, poverty, and the rebellion of the individual. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3604 Don Quijote (3). A careful reading and discussion of Cervantes' Don Quijote, with particular attention to its multiple meanings in human terms, its innovative contributions to the novel in Europe, and the author's use of irony, characterization, and humor. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3720 The Generation of 98 (3). Based on the works of Azorin, Baroja, Ganivet, Machado, Maetzu, Unamuno, and Valle-Inclan. This course will emphasize the individual thrust each author makes to foster artistic revolution and human regeneration, within a society characterized by abulia and existentialist anxiety. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3810 Literary Analysis (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

SPW 3820 Peninsular Spanish Literature (3). Close reading and analysis of prose, poetry, and drama. Selections from Spanish peninsular literature. Prerequisites: SPN 3422 or equivalent and oral and written proficiency in Spanish.

SPW 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and instructor. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4133 Eastern Thought and Latin American Literature: The Age of Octavio Paz (3). An exploration of Eastern thought's influence on Latin American literature since pre-Columbian times: emphasis on Octavio Paz and his contemporaries, in relation to 20th-century Western thought.

SPW 4263 The Spanish Novel of the Nineteenth Century (3). Within the context of literature and society, representative Spanish novels of the epoch will be studied. Special attention will be given to Galdos and Clarin. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4271 The Spanish Novel of the 20th Century (3). A study of the genre in Spain before and after the Civil War. Emphasis will be on predominant narrative tendencies. Representative authors will be discussed, such as Cela, Laforet, Sender, Matute, Medio, and others. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4280 Spanish American Novel I (3). A view of Spanish American narrative from Colonial times to the turn-of-the-century with focus on the development of literary trends and movements. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4281 Spanish American Novel II (3). Study of Spanish America's outstanding novelists: Güiraldes, Carpentier, Cortázar, Fuentes, Vargas Llosa, Donoso, and García Márques. Considers their works in relation to Spanish American themes. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4300 Modern Spanish Drama (3). Examines the production of major Spanish playwrights from the middle of the 18th century to the present. Analyzes the social functions theatre has fulfilled in different periods, its intended audiences, and the poetics the authors represent. Prerequisites: SPW 3820 or SPW 3130.

SPW 4304 Latin American Theatre (3). A view of Latin American theatre from the 19th century to the present. Representative works of the most renowned dramatists will be examined, with emphasis on the works of Usigili, Triana, Márques Wolff, and Diaz. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4334 Golden Age Poetry (3). Selected readings from the major lyric poets of the 16th and 17th centuries. Special attention to the problems of contemporary readings of classical texts. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4343 Poetry of Garcia Lorca (3). Chronological examination of the major works of Spain's greatest poet. Special attention to the lyric and dramatic features. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4351 Spanish American Poetry I (3). A view of Spanish American poetry from the Pre-Colonial period until 1850. Representative works of the most renown poets will be examined, with emphasis on Ercilla, Sor Juana, Bello, Heredia, and Avellaneda. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4352 Spanish American Poetry II (3). A view of Spanish American poetry from 1850 to the present. Representative works of the important poets will be

examined, and special attention will be given to Lezama Lima, Parra, Paz, and Vallejo. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4364 The Spanish American Essay (3). A study of the ideological and intellectual forces that have shaped the Spanish American thought, as expressed in the works of representative authors such as Rodo, Mallea, Martinez Estrada, Paz, Manach, and others. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4384 Spanish-American Literaure Before Independence (3). Studies Spanish-American literature prior to Independence providing a general understanding of the development of literature from the Conquest to the Enlightenment. Prerequisites: SPW 3130 & SPW 3820 or permission of the instructor.

SPW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama). Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4391 Contemporary Spanish Cinema (3). Cinematographic modes of representing reality in the Spain of the post-Franco era. Focuses on class, race, gender, culture, aesthetics, and ideology.

SPW 4420 Quevedo's Satire (3). An introduction to the literary world of Spain's great baroque poet, who created modern satire in Spanish. Prerequisite: A good understanding of Spanish. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4424 Golden Age Drama (3). Close readings from the finest plays written in Spain's Golden Age by Lope de Vega, Calderon, Tirso, and others, including the Don Juan theme. An examination of theatre as stylized conformity and as protest literature in a highly controlled society. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4440 18th Century Spanish Literature (3). Examines the most relevant poetry and prose produced by 18th century Spanish writers. Prerequisites: SPW 3130 and SPW 3820.

SPW 4470 Asia in 19th Century Hispanic Literature (3). Studies the formation and influence of Asia in 19th century Spanish and Spanish-American literary discourse.

SPW 4580 El Dorado in Hispanic Literature and Film (3). The Age of Discovery and Conquest in Hispanic literature and film. Considers the works of Columbus, Cadeza de Vaca and Lope de Aguirre in contrast with contemporary reconstructions of their lives. Prerequisites: SPW 3130 or permission of the instructor.

SPW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/ baroque, realism/surrealism. The peculiar/common features of expressive media. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4930 Special Topics (3). Independent readings, research, or project.

SPW 5135 Spanish American Literature for Teachers (3). Overview of major trends in Spanish American literature. Especially designed for school teachers and majors in modern language education. Not for M.A. or Ph.D. Spanish majors. Prerequisite: Permission of the instructor.

SPW 5155 Comparative Studies (3). Cross-over and distinctiveness in a multi-language problem, period, or aesthetic.

SPW 5225 Textual Reading and Analysis (3). Studies how texts are constructed, the role played by Poetics and Rhetoric in their formulation, and the context in which they were produced. Prerequisite: Graduate standing.

SPW 5237 The Traditional Spanish American Novel (3). Study and analysis of the traditional Spanish novel as a form of art, from 19th century Lizardi's El periquillo sarniento, to 1950. The novels and authors studied are representative of 'costumbrismo', 'romanticismo', 'naturalismo', 'modernismo', and 'criollismo'.

SPW 5277 Twentieth Century Spanish Narrative (3). Analysis of the Spanish novel from Ferlosio's El Jarama to the present. The perspective will be focused within historical, social, and artistic context. Representative authors such as Cela, Martin Santos, Umbral, Delibes, Benet, Goytisolo, and others will be included.

SPW 5286 Contemporary Spanish American Novel (3). A study of the Spanish American Novel from 1950. The course will intensively and extensively focus on the novelists who are best known for their innovations, defining and analyzing the qualities which give originality and newness both in themes and language.

SPW 5346 Poetry of Jorge Guillen (3). Selected readings from the five volumes of Aire nuestro. Emphasis on the techniques of close reading and explication. Related selections from Guillen's literary criticism.

SPW 5358 Graduate Seminar: Prose and Poetry of Jorge Luis Borges (3). Close readings of short stories and poetry. Emphasis on Borge's linguistic and cultural pluralism and the interplay of philosophy with fabulation.

SPW 5359 Graduate Seminar: Poetry of Pablo Neruda (3). Chronological examination of the major works of Chile's Nobel Laureate. Related readings from Neruda's Memories. Emphasis on the poet's linguistic and aesthetic innovations.

SPW 5387 Women and Poetry (3). Women as poets and the poeticized. Close reading of Peninsular and Latin American texts, 16th - 20th Century. Students examine the contributions of women and how they have been represented in poetry. Prerequisites: 4000 or 5000 level course in Hispanic Poetry.

SPW 5396 History of Cuban Cinema (3). Overview of Cuban Cinema, from its origins to the present.

SPW 5405 Medieval Spanish Literature (3). Readings in Medieval literature of Spain including the epic, the learned poetry of the XIIIth and XIVth Centuries, and the literature of Juan II's court. Prerequisites: Graduate standing or permission of the instructor.

SPW 5407 The Renaissance in Spain (3). Readings in the literature and cultural experssions of the Spanish Renaissance. Prerequisites: Graduate standing or permission of the instructor.

SPW 5408 Colonial Latin American Literature (3). The most important and representative literary works of Colonial Latin America from the Cronicas to Lizardi. Prerequisites: Upper level and graduate standing.

SPW 5425 Quevedo: Poetry (3). Close reading of selected poems by Spain's greatest baroque poet and creator of modern Spanish satire, including poems on love, death, and metaphysical concerns, and a wide range of humorous poems.

SPW 5426 Quevedo: Prose Satire (3). Close reading of selected satires in prose by Spain's greatest baroque satirist and creator of modern Spanish satire. Includes Quevedo's picaresque novel El Buscon, and his Suenos, or Visions of Hell.

SPW 5428 Theatre in Calderon and Lope (3). The creation of verbal theatrical technique in the Baroque masters Calderon de la Barca and Lope de Vega.

SPW 5436 Poetry Writing in Spanish (3). Readings from Spanish and Latin American texts; description and recreation of traditional and experimental metrics. Students will exchange critiques of original poems. Prerequisites: sample of unpublished poems; wordprocessing literacy; permission of the instructor.

SPW 5475 19th Century Latin American Literature (3). A study of the main literary works of Spanish speaking 19th Century Latin America: Romanticism, Realism, Naturalism and Modernism. Prerequisites: Upper level and graduate standing.

SPW 5486 Modern Spanish Women Writers (3). Analysis of narrative works by Spain's most representative women writers from the 19th century to the present. Emphasis on the novel. Includes works by Pardo Bazan, Matute, Laforet, Martin Gaite. Prerequisites: Graduate standing or permission of the instructor.

SPW 5515 Advanced Studies in Hispanic Folklore (3). Studies the oral literary and linguistic tradition of the Hispanic world. Prerequisites: Graduate standing or permission of the instructor.

SPW 5535 Spanish Romanticism (3). Study of Spanish Romanticism through the analysis of major literary figures of the movement: Larra, Zorrilla, Espronceda, Castro and Becquer. Prerequisite: Graduate standing.

SPW 5546 Hispanic Neoclassicism (3). Study of major Spanish and Spanish-American Neoclassic writers: Cadalso, Moratin, Jovellanos, Carrio de la Vandera, mier and Lizardi. Prerequisite: Graduate Standing.

SPW 5556 Spanish Realism and Naturalism (3). Readings in Spanish XIXth Century Novel of Realism and Naturalism including Alarcon, Perez Galdos, Pardo Bazan, Clarin and Blasco Ibanez. Prerequisites: Graduate standing or permission of the instructor.

SPW 5575 Spanish American Modernism (3). An in-depth study of prose and poetry of one of the most important periods of Spanish American literature, focusing on Marti, Dario, Najera, Casals, Silva, Valencia, Lugones, and Herrera y Reissig.

SPW 5585 Learning Technology in Spanish Pedagogy and Research (3). Exploration of the role of technology in today's language and literature learning environment. Overview of the WWW, Network-based communication, and electronic databases related to Hispanic language and literature. Prerequisite: Graduate standing or advanced undergraduate with permission of the instructor.

SPW 5595 Magical Realism and Typologies of Non-Realist Fiction (3). Theories of magical realism, fantastic and non-realist fiction, focusing on narrative technique. Authors may include Onetti, Borges, Cortázar, Asturias, Carpentier, Rulfo, Márquez, Allende or others. Prerequisites: Graduate standing or permission of the instructor.

SPW 5606 Cervantes (3). A comprehensive introduction to the masterpieces of Cervantes as the creator of the modern novel, and to critical theories about his art.

SPW 5729 Major Writers of the Generation of '98 (3). Study of the social and political circumstances of Spain at the turn of the XIX Century, and analysis of the work of Ganivet, Azorin, Baroja. Machado, Maeztu, Unamuno and Valle-Inclan. Prerequisites: Graduate standing or permission of the instructor.

SPW 5735 Hispanic Literature of the United States (3). Readings in the literature of Hispanics in the United States. Prerequisites: Graduate standing or permission of the instructor.

SPW 5756 Mexico in Poetry (3). Close reading of modern poets; discussion of essays on Theory and Practice. Students examine national representation in Myth, symbol and metaphor. Prerequisites: 4,000 or 5,000 level course in Culture of Literature.

SPW 5776 Black Literature in Latin America (3). An examination of the different genres in Latin American literature focusing on the life of Afro-Hispanics, from the beginning of this literary tradition to the present time. Prerequisite: Graduate standing.

SPW 5781 The Representation of Women in Spanish Literature and Film (3). Study of cinematographic adaptations of Spanish novels, plays and short stories. Analyzes the representation of the female subject in both literary and filmic works. Prerequisites: Graduate standing or permission of the instructor.

SPW 5786 Spanish American Women Writers (3). Through a selection of poems, plays and novels, this course studies Spanish American women's production from Independence to the present times. Prerequisite: Graduate students only.

SPW 5806 Methods of Literary Research (3). Introduction to bibliography, methods of research, the composition of essays, rhetoric, and the presentation of documentation. Theory of literary criticism, and its practical application to texts in Spanish.

SPW 5934 Special Topics in Language/Literature (3). Content and objectives to be determined by student and instructor.

SWA 1130 Swahili I (5). Beginning course in spoken and written language for students with limited or no knowledge of the language and culture.

Philosophy

Kenneth Rogerson, *Professor and Chairperson*
Sean Allen-Hermanson, *Assistant Professor*
Michelle Beer, *Associate Professor*
Bong Kil Chung, *Professor*
Christopher Grau, *Assistant Professor and Associate Chair*
Kenton Harris, *Lecturer and Assistant Dean*
Bruce Hauptli, *Professor*
Kenneth Henley, *Professor, Director of Undergraduate Studies and Associate Chair*
George Kovacs, *Professor*
Jennifer Matey, *Assistant Professor*
Ingvild Torsen, *Assistant Professor*
Paul Warren, *Associate Professor*
Kiriake Xerohemona, *Lecturer*

Bachelor of Arts in Philosophy

Degree Program Hours: 120

Common Prerequisites

No specific courses are required; transfer students are encouraged to complete the Associate of Arts degree.

Philosophy encompasses a broad range of topics and methods of inquiry: Socratic questioning of the extent and nature of human knowledge, probing the rational basis of moral and political thought, confrontation with fundamental questions of value and meaning, analysis of basic concepts underlying theoretical and practical thought, reflection on the human existential situation, and exploring the structure of reasoning itself. The great philosophers are studied both for historical understanding and contemporary significance.

Philosophy majors may choose one of three tracks. The General Track is designed to serve students with a broad interest in philosophy. The Professional Track is designed for students considering philosophy as a professional discipline. It is especially appropriate for those considering graduate work in philosophy and those with an interest in a thorough and systematic study of the full range of philosophical thought. The Specialized Track is designed for students who are interested in philosophical reflection on a specific discipline or area such as law, religion, or psychology. It is especially appropriate for pre-law students and for dual majors who are interested in the relationship between philosophy and their other major discipline.

Degree Requirements

The following requirements apply to all three tracks. (i) any course taken to fulfill a requirement for the major may not be taken with the "pass/fail" option and must be passed with a grade of "C" or better, (ii) no more than 6 (six) hours of Independent Study may be used to fulfill major requirements, (iii) at most, one of PHI 2100 (Introduction to Logic) or PHI 2103 (Critical Thinking), or their equivalents, may be used to fulfill major requirements, and at most six other hours of lower division philosophy courses may be counted toward the degree.

In addition to fulfilling the requirements of the major, the College of Arts and Sciences has a number of requirements which are listed in the University's Catalog at the beginning of the Arts and Sciences section. The Philosophy Department allows a maximum of 15 hours of philosophy transfer credit for a major (6 hours for a minor) subject to the following restrictions: at most one of PHI 2100 (Introduction to Logic), PHI 2103 (Critical Thinking), or their equivalents may be used to fulfill major requirements, and be counted toward the degree. Such transfer credit can only be awarded by a philosophy advisor, and students who wish to apply for it are advised to discuss their course of studies with an advisor early in their career at FIU.

The General Track: (33 Semester Hours Required)

The General Track is designed to serve students with a broad interest in philosophy. One three-hour Logic course is required, selected from PHI 2100, PHI 2103, PHI 4130, or PHI 4161. The remaining 30 hours may include any philosophy courses (except that the requirements applying to all three tracks must be met). Students are strongly encouraged to discuss their course selections with their advisor.

The Professional Track: (33 Semester Hours Required)

The Professional Track is designed for students considering philosophy as a professional discipline. It is especially appropriate for those considering graduate work in philosophy and those with an interest in a thorough and systematic study of the full range of philosophical thought. While a foreign language is not required for the major, students considering graduate school should seriously consider sufficient course work in German, French, Latin, or Greek so that they achieve fluency in the language. Receiving a 'C' or better in 33 semester hours of upper division philosophy courses distributed as follows will fulfill the requirements for this track:

Logic/Probability[1]	3
Epistemology/Metaphysics	6
Value Theory	6
History of Philosophy[2]	9
Non-Western Philosophy	3
Other Philosophy Courses	3
Philosophy Seminar	3

(see department for list of courses which satisfy these requirements)

[1]Neither PHI 2100 nor PHI 2103 fulfills the Logic/Probability requirement for this track; however, one may be included as a Philosophy elective.

[2]Must include 3 hours in the area of Ancient Philosophy

The Specialized Track: (33 Semester Hours Required)

The Specialized Track is designed for students who are interested in philosophical reflection on a specific discipline or area such as law, religion, or psychology. It is especially appropriate for pre-law students and for dual majors who are interested in the relationship between philosophy and their other major discipline. An approved Individualized Plan of Study will meet the requirements for this track. Such plans are designed by the Philosophy advisor in consultation with the student so that they can be tailored to the student's specific interests and goals. Students pursuing the Specialized Track must secure prior written approval of their course selections from their advisor. The proposed course selections must present a clear, focused, and coherent plan of study. The Philosophy Program Brochure (available in the Department on either campus) includes several models of such plans of study, including

Pre-Law Studies, Western Philosophy and Its Historical Context, Social and Political Philosophy, Philosophy and Religious Thought, Philosophy and Difference, Philosophy and Psychology, and Philosophy and the Arts. Each such plan must include 33 semester hours, and the courses taken in accord with the plan must be passed with a grade of 'C' or better. One three-hour Logic course is required, selected from PHI 2100, PHI 2103, PHI 4130, or PHI 4161. With the prior written approval of a Philosophy advisor, up to nine semester hours from other programs may be counted toward the 33 hour major. However, only six hours credited toward the major requirements of another major program may be counted.

Bachelor of Arts in Philosophy with Honors

A policy for Philosophy majors who wish to exercise the Thesis Option within the Honors College: This option is open only to Honor's Program students who are Philosophy majors and who must apply for it during the spring semester of the Junior year. To receive Honors via the Thesis Option:

- students must enroll in one three-credit Honors Thesis Independent Study course in Philosophy in each of the Fall and Spring semesters of their Senior year,
- be approved by both their Thesis Advisor (who directs the independent studies) and the Departmental Chairperson.

Eligible students may apply for the Thesis Option by submitting an Honors Thesis Proposal to the department Chairperson provided they have met the following minimal conditions:

1. they must have a cumulative FIU GPA of at least 3.5,
2. they must have completed (by the end of that semester) at least five upper division philosophy courses,
3. they must have completed (by the end of that semester) at least one upper division philosophy in the area in which they intend to write their Thesis, and
4. they must have identified a faculty member who would be willing to supervise the Thesis and the two three-credit independent study courses which are associated with it.

Students considering pursuing the Thesis Option should read the recommendations regarding Independent Study in the Philosophy Brochure.

Combined Bachelor/Master of Arts in Liberal Studies

The combined (4+1) Bachelor/Master of Arts in Liberal Studies offers outstanding undergraduate FIU students in majors such as Philosophy and Liberal Studies the opportunity to earn a Masters degree in only one additional year beyond the BA degree. Many Philosophy and Liberal Studies majors earn minors, complete second majors, or do certificate programs because they have broad interests and have a tendency for cross-disciplinary and interdisciplinary inquiry. An accelerated MALS program seems the perfect vehicle to pursue such interests.

The (4+1) program represents two distinct patterns:

1. Philosophy to MALS. This option allows students to complement the undergraduate major with graduate study in another area.
2. Liberal Studies to MALS. This option allow students to complement the undergraduate major with graduate study in the same discipline as the undergraduate study.

The goal is to attract outstanding students into the combined program so that they formally apply to the program in the first semester of their senior year (i.e., when they have completed 90 credit hours.) Interested students should speak with the undergraduate advisor as early as possible because careful selection of undergraduate courses in the sophomore and junior years will be essential for admission to the program.

Applicants to the accelerated program need a GPA of 3.20. Formal admission to the accelerated program is usually in the first semester of the senior year. Students would be also required to maintain a GPA of at least 3.20 to remain in the program. Participation in this program allows the students to fulfill some graduate program requirements during their senior year. More specifically, students at the senior level may be allowed to earn up to 9 graduate credits that will count towards their MALS degree. Up to 3 graduate courses (9 credits) may be used to satisfy both the Bachelor and Masters degree requirements. All double counted courses must be at the 5000 level of higher. Courses to be allowed to be double counted must be approved by MALS. Before starting the graduate program students must have satisfied all general education and core requirements.

The curriculum for the (4+) MALS will meet criteria identical to those of the MALS program. A student will not be eligible for assistantship funding before completing all requirements for the Bachelors degree. For the double counted courses, students must, in consultation with their graduate program advisor, approve that the student is taking the course for graduate credit. Graduates and undergraduates may have different work loads and grading criteria. The student must earn a grade of "B" or better for these courses to count towards the Masters requirements.

Admission Requirements

(1) Current enrollment in a bachelors degree in Philosophy or Liberal Studies.
(2) Completed at least 90 credits hours of coursework.
(3) Current GPA of 3.20 or higher.
(4) Application to the Department to enroll in the (4+1) MALS program that will include
  (a) Three letters of recommendation
  (b) Written statement describing goals and objectives in seeking a combined accelerated degree
  (c) A 8-15 pages writing sample of satisfactory quality
(5) On-line application to the University Graduate Shool for admission to the MALS program.
(6) Positive evaluation by the undergraduate program director.
(7) Approval of the graduate admissions committee.
(8) In addition to the admission requirements of the (4+1) MALS program, students must meet all the admission requirements of the University Graduate School.

Completion Requirements

(1) Completion of both the required courses for the BA (33 credits and the required courses for the MALS (33 credits).
  (a) For the Philosophy to MALS, either 3 Great Ideas Seminars or 3 – 5000 or 6000 level courses in Natural Sciences, Humanities or Social Sciences

may be used to satisfy both the Bachelors and Masters degree.

(b) For the Liberal Studies to MALS, either the 3 Great Ideas Seminars or 3 – 5000 or 6000 level courses in Natural Sciences, Humanities or Social Sciences may be used to satisfy both the Bachelors and Masters degree.

(2) The bachelor's degree must be awarded when the student completes the requirements for the degree. In other words, the bachelor's degree must be awarded before the master's degree.

(3) Students in the (4+1) MALS program have up to a year to complete the Master's degree after receipt of the bachelor's degree.

(4) Students who fail to meet the one year post BA requirement or who elect to leave the (4+1) MALS program at any time and earn only the BA degree will have the same access requirements to regular graduate program as any other student, but will not be able to use the 9 credits in both the bachelor's and the master's degrees.

Summary of Degree Requirements

Great Ideas Seminars:	9 hours (minimum*)
Interdisciplinary Concentration:	18 hours (minimum*)
Master's Essay or Master's Thesis:	3 hours or 6 hours
Total Hours:	33 hours or 36 hours

*33 hours of coursework are required of all (4+1) MALS students. However, a maximum of 3 hours are awarded for the "Master's Essay" course as opposed to 6 hours for "Master's Thesis" course. Students who choose the Essay option must complete either 4 Great Ideas Seminars or 21 hour Interdisciplinary Concentration.

The Philosophy Minor

A student majoring in another academic discipline can earn an academic minor in Philosophy by taking 15 hours in philosophy (PHH, PHI, PHM, and PHP prefixes) and earning a "C" or better. Only three hours may be earned in lower division (1000 and 2000 level) courses.

Course Descriptions

Definition of Prefixes

GRE-Ancient Greek; PHH-Philosophy, History of; PHI-Philosophy; PHM-Philosophy of Man and Society; PHP-Philosophers and Schools.

GRE 3050 Introduction to Ancient Greek (3). Introduces the Greek language of the New Testament, and other works of the ancient period to enhance the understanding of translated texts. A portion of the Gospel of John is studied.

PHH 2063 Classics in Philosophy: An Introduction to the History of Philosophy (3). Introduces the history of philosophy by examining the works of such philosophical giants as Plato, Aristotle, Descartes, and Kant. Written work meets state composition requirement of 6,000 written words.

PHH 3042 Latin American Philosophy (3). This course will examine the development of Latin American thought, with particular attention to the 19th and 20th centuries. It will consider the traditions and initiatives of prominent Latin American philosophers in the light of problems such as personal and cultural identity.

PHH 3100 Ancient Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought, particularly in the Greek and Roman cultural settings, and linkages to their past and future are emphasized in this course.

PHH 3200 Medieval Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the Middle Ages, and linkages to their past and future are emphasized in this course.

PHH 3401 Sixteenth and Seventeenth Century Philosophy (3). The basic concerns and teachings of representative European Continental philosophers of the 16th and 17th centuries (esp. Descartes, Pascal, Leibniz, and Spinoza) are emphasized in this course.

PHH 3402 British Empiricism (3). The basic concerns and teachings of representative British Empiricists of the 17th & 18th centuries (esp. Locke, Berkeley, and Hume) are emphasized in this course.

PHH 3420 Early Modern Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the period from the Renaissance to Kant and the linkages to their past and future are emphasized in this course.

PHH 3440 Late Modern Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the period from Kant to Nietzsche and the linkages to their past and future are emphasized in this course.

PHH 3602 Twentieth Century British Philosophy (3). Examines the development of 20th century British philosophy, with special attention to the justification for its aims, methods, and central concerns (e.g. knowledge, appearance and reality, memory, and the value of philosophy).

PHH 3700 American Philosophy (3). This course will examine the development of American philosophical thought, with particular attention to the 19th and 20th centuries. It will consider the traditions and initiatives of the prominent American philosophers, in the light of problems such as the relationship between theory and practice.

PHH 3810 Philosophy of Buddhism (3). Examines the central philosophy of Buddhism dealing with: 1) the question of reality and appearance, 2) the theories of causation, 3) the relation of these views to Buddhist soteriology (realism, idealism, dialectics, Hwa-yen).

PHH 3840 Indian Philosophy (3). Metaphysical, epistemological and ethical theories within such major Indian philosophical systems as philosophical Buddhism, Gains, Samkhya dualism, and Vedanta transcendentalism are examined.

PHH 4600 Twentieth Century Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the present century, and linkages to past and emerging generations are emphasized in this course.

PHH 4930 A Major Philosopher (3). This course will examine in detail the works of a major figure in the history

of philosophy. Prerequisite: Permission of the instructor. Course may be repeated on a different philosopher. (S)

PHI 2011 Philosophical Analysis: An Introduction to the Problems of Philosophy (3). This course introduces both the tools of philosophical thinking and some of their applications to fundamental topics such as knowledge, value, meaning, and human society. Written work meets state composition requirement of 6,000 written words.

PHI 2100 Introduction to Logic (3). This introductory course in logical thinking and argumentation will treat both practical and theoretical approaches to understanding human communications and solving problems. Students will be introduced to inductive and deductive logic, fallacies, and the role of logic in scientific explanation and popular expression. Written work meets state composition requirement of 6,000 written words.

PHI 2101 Philosophical Logic (3). This course studies the propositional and predicate calculus and such topics as necessary truth, entailment, the ontological implications of logic, and the justification of deduction and induction.

PHI 2103 Critical Thinking (3). A course in practical reasoning designed to sharpen abilities at analyzing, evaluating, and constructing arguments.

PHI 2600 Introduction to Ethics (3). Explores philosophical accounts of morality, including the rational justification of commitment to the moral life, and theories of duty, obligation, and virtue. Written work meets state composition requirement of 6,000 written words.

PHI 3073 African Philosophy (3). An analysis of the metaphysical, epistemic, ethical, and political thoughts constituting the African world views and cultural settings.

PHI 3300 Epistemology (3). The viewpoints of various philosophers and schools of thought regarding types of knowledge, certitude, and creativity are the main emphases of this introductory course. The meaning of truth and truthfulness is analyzed from both the classical and the contemporary perspectives.

PHI 3320 Philosophy of Mind (3). An inquiry into the concept of mind and subsidiary concepts such as sensation, perception, desire, emotion, intention, volition, imagination, and intellect. The course will address the problem of the relation of mind and body and such topics as the concept of a person, the nature of intentional action, and the nature of consciousness.

PHI 3400 Philosophy of Science (3). The philosophic background of scientific method will be examined. Attention will be given to the philosophical consequences of conceptual change in the sciences. Such topics as the growth and unity of science, explanation and prediction, and the role of science in society will be explored.

PHI 3420 Philosophy of Social Science (3). An inquiry into philosophical questions raised by the social sciences. Topics include forms of social explanation, the nature of rationality, and the status of values in social science.

PHI 3454 Philosophy of Biology (3). Examines the philosophical problems raised by the theory of evolution in 3 parts: external challenges to the theory, internal disputes about key concepts, controversies about applications theory.

PHI 3500 Metaphysics (3). This introductory course examines basic metaphysical questions regarding the nature of reality, as well as the meaning of these questions for the relationship of persons with their world. Fundamental texts from classical and contemporary philosophers will be considered.

PHI 3601 Ethics (3). What is intrinsically good? What ought one to do? How are moral claims justified? Competing views of major philosophers are considered.

PHI 3640 Environmental Ethics (3). Examines philosophical and ethical perspectives on human interaction with the natural world.

PHI 3638 Contemporary Ethical Issues (3). After a review of basic questions regarding ethics, this course considers special ethical problems in contemporary society from the perspective of one or more philosophers or systems of ethics. Topics will be selected and announced in advance.

PHI 3700 Philosophy of Religion (3). This course investigates whether or not religious beliefs can be rationally justified. Such topics as the nature of God, the problem of evil, religious experience, and the relationship of faith to reason will be explored.

PHI 3762 Eastern Philosophical and Religious Thought (3). This introductory course examines the development of philosophical and religious thought in the East from ancient to modern times. Hinduism, Buddhism, Confucianism, Taoism, and other major viewpoints will be considered, in themselves and in comparison with Western forms of thought.

PHI 3800 Philosophy of Art (3). An introduction to problems in Philosophy of Art, with emphasis on those problems which are especially relevant to appreciation and criticism in the arts. Typical problems include the relation between form and content, truth and falsity in art, the nature of emotion in art and of the aesthetic response, as well as the nature of art itself. This course will include a study of selections from the writings of major thinkers and the consideration of those works of art which are relevant to this study.

PHI 3880 Philosophy Through Film (3). Offers a thorough investigation into several philosophical issues through the medium of film. Close readings of individual films will accompany the study of key philosophical texts.

PHI 4130 Symbolic Logic (3). This course provides an introduction to symbolic logic. Emphasis is upon both the formal techniques of analysis of argument and upon the theoretical aspects of formal logic.

PHI 4161 Philosophy and Probability (3). An introduction to the philosophical applications of elementary probability theory. Topics include mathematical probability, rational decision making, the foundations of science, and Pascal's wager.

PHI 4220 Philosophy of Language (3). The subject matter concerns the relations between language, thought, and the world. Topics to be studied include reference, meaning, speech acts, and propositional attitudes. Also to be considered are the implications of claims here for issues in other areas of philosophy.

PHI 4222 Philosophy of Dialogue (3). This course examines the meaning, the foundations, the limitations of dialogue, and the dialogical structure of expression and human relationships based on the philosophy of Martin Buber. It includes a philosophical analysis of the dialogical principle and the application of its insights to the problems of human living and knowing.

PHI 4230 Language and Paradox (3). An inquiry into the nature of semantic paradoxes, including analysis of their significance, examination of proposed solutions, and investigation of the relationship between paradoxes, language, and truth.

PHI 4321 Topics in the Philosophy of Mind (3). This course examines selected issues in the philosophy of mind. Topics include the nature and value of the passions, self and self-deception, theory of action, etc. May be repeated.

PHI 4370 Topics in Epistemology (3) Study of a focused topics in epistemology (such as: a priori knowledge and justification; certainty; or skepticism). This course may be repeated.

PHI 4541 Philosophy of Time (3). An analysis of the nature of time. Topics include the "passage" of time, the asymmetry between past and future, Zeno's paradoxes, and philosophical implications of the special theory of relativity.

PHI 4633 Biomedical Ethics (3). After examining the foundations of ethics, this course will consider the human and ethical dimensions of current issues in the life sciences, such as the meaning of human living and suffering, ethics of genetic control, death and dying, personal responsibility in the medical and counseling professions.

PHI 4764 Religious Experience (3). An introduction to philosophical thought about religious experiences. After a brief survey of the major types of religious experiences, issues about their nature and cognitive status are examined.

PHI 4882 Philosophy in Literature (3). Philosophical implications of selected works and the impact of philosophical concepts such as the self, death, identity, alienation, responsibility, freedom, and the absurd.

PHI 4884 Philosophy of Film (3). An investigation into the distinctly philosophical issues that arise when studying film. In particular, questions surrounding narration, authorship and genre will be considered.

PHI 4910 Independent Research (1-6). Topics will be selected to meet the academic needs of the individual student. Prerequisite: Permission of the instructor.

PHI 4930 Special Topics (3). In-depth study of topics of special interest in philosophy.

PHI 4935 Philosophy Seminar (3). This seminar is designed for majors and other qualified students approved by the Department, and will be guided by one or more faculty members. Topic will be selected and announced in advance. The number of participants will be limited.

PHI 5934 Special Topics (3). Topics will be selected to meet the academic needs of groups of students.

PHM 3040 Philosophical Anthropology (3). This course attenpts to interpret philosophically scientific perspectives concerning the nature of man and the human condition. It seeks to elucidate the basic qualities that make man what he is and distinguish him from other beings.

PHM 3200 Social and Political Philosophy (3). The nature of society and the state, authority of society and the state over the individual, political obligation, legitimacy of government, and idea of social contract are considered.

PHM 3400 Philosophy of Law (3). After an analysis of the nature of law and judicial reasoning in the light of fundamental alternative interpretations, basic topics of legal philosophy will be considered, such as freedom and rights, responsibility and punishment, rule of law and civil disobedience, legality and justice.

PHM 3500 Philosophy of History (3). After exploring the definitions, dimensions and interrelations of philosophy and history, students will examine major philosophies of history. The social responsibility of the historical narrative and the philosophical assumptions of historiographies will be discussed.

PHM 4020 Love and Sexuality (3). This course analyzes the nature and meaning of love and sexuality, and studies the basic problems in human sexual living, such as love and the man-woman relationship, the formation of sexual union, and attitudes toward love and sexuality in contemporary society.

PHM 4050 Philosophy of Death (3). This course analyzes the meaning of death and man's attitude towards death and the dying. It examines how philosophy can share in the new confrontation between man and his death, and shows the ways philosophical thinking contributes to the discovery of an authentic attitude towards the phenomenon of death as part of human living.

PHM 4123 Philosophy and Feminism (3). A conceptual analysis of alternative feminist views. Topics include the goals of the feminist movement, sexist theories on women's nature, sexual stereotypes and androgyny, the nature of oppression, sexism, racism and homophobia.

PHM 4360 Topics in Political Philosophy (3). Examines a selected topic in political philosophy, such as: justice, democracy, liberty, or an important thinker. May be repeated. Prerequisites: PHM 3200 or permission of the instructor.

PHM 4430 Topics in Philosophy of Law (3). Examines a focused topic in philosophy of law, such as: punishment, legislation of morality, the rule of law, or an important thinker. May be repeated.

PHP 3840 Chinese and Japanese Philosophy (3). Metaphysical and ethical theories of the three main philosophical systems of China, namely, Classical and neo-Confucianism, Taoism, and Chinese Buddhism are examined. For Japanese philosophy, Shintoism is included.

PHP 4510 Marxism (3). This course examines the philosophic insights of Marx and the main trends (anthropological, social, existential) in contemporary Marxism. It includes an analysis of the Marxist interpretation of alienation, work, and human authenticity.

PHP 4782 Phenomenology (3). This course analyzes the method, the basic philosophical insights and the applications of 20th century phenomenology. It includes the phenomenological analysis of knowing as well as basic questions regarding the nature of reality together with the study of fundamental texts from Husserl, Heidegger, and Merleau-Ponty.

PHP 4784 Analytic Philosophy (3). This course examines the 20th century Anglo-American tradition of approaching philosophic problems by the methods of linguistic analysis. It will include study of techniques of linguistic analysis and an evaluation of their adequacy in dealing with meaning and truth, the mind-body problem, and free will.

PHP 4786 Existentialism (3). This course examines the origin, basic philosophical insights, and influence of the mainstreams of modern existentialism. It includes the study of fundamental texts of Kierkegaard, Nietzsche, Sartre, Jaspers, and Camus.

PHP 4789 Contemporary French Philosophy (3). Main trends (hermeneutics, postmodernism, deconstruction) in twentieth century French philosophy, with emphasis on seminal thinkers, e.g., Levinas, Derrida, Ricoeur, Foucault, Irigaray.

Physics

Walter Van Hamme, *Professor and Chairperson*
Werner Boeglin, *Associate Professor*
Richard A. Bone, *Professor*
Prem Chapagain, *Assistant Professor*
Yesim Darici, *Associate Professor*
Rudolf Fiebig, *Professor*
Bernard Gerstman, *Professor*
Kenneth Hardy, *Professor Emeritus*
Laird H. Kramer, *Associate Professor*
Wenzhi Li, *Assistant Professor*
Pete C. Markowitz, *Professor*
Oren Maxwell, *Professor*
Stephan L. Mintz, *Professor*
Rajamani Narayanan, *Assistant Professor*
Brian A. Raue, *Associate Professor*
Joerg Reinhold, *Associate Professor*
Misak Sargsian, *Associate Professor*
Jeffery M. Saul, *Assistant Professor*
John W. Sheldon, *Professor Emeritus*
Caroline E. Simpson, *Associate Professor*
Xuewen Wang, *Associate Professor*
James R. Webb, *Professor*
Jiandi Zhang, *Associate Professor*
Yifu Zhu, *Professor*

Bachelor of Science

Degree Program Hours: 120

This program prepares students for careers as professional physicists in industry, government, or graduate study in physics, engineering, or material science. It also prepares students for teaching careers. Students interested in teacher certification should contact the College of Education.

Example course study schedules can be found on the department's web page: http://physics.fiu.edu.

Lower Division Preparation

Required Courses

Common Prerequisites

CHM 1045	General Chemistry I	
CHM 1045L	General Chemistry Lab I	
CHM 1046	General Chemistry II	
CHM 1046L	General Chemistry Lab II	
MAC 2311	Calculus I	
MAC 2312	Calculus II	
MAC 2313	Calculus III	
PHY 2048	Physics with Calculus I	
PHY 2048L	Physics with Calculus Lab I	
PHY 2049	Physics with Calculus II	
PHY 2049L	Physics with Calculus Lab II	

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Additional Required Courses (2)

PHY 1033	First-Year Physics Seminar (To be taken both in Fall and Spring Terms)	1

Upper Division Program (60)

PHY 3106, PHY 3107	Modern Physics	6
PHY 3106L, PHY 3107L	Modern Physics Labs	2
PHZ 3113	Methods in Theoretical Physics	3
PHY 3513	Thermodynamics	3
PHY 4221, PHY 4222	Mechanics	6
PHY 4323, PHY 4324	Electromagnetism	6
PHY 4604, PHY 4605	Quantum Mechanics	6
PHY 4810L	Senior Physics Lab	3
PHY 4905, PHY 4906, PHY 4907	Independent Study	3
Approved electives in experimental or theoretical physics		6
MAP 2302	Differential Equations	3
Electives (Physics or Non-Physics)		16

Bachelor of Science in Physics with Honors

The Honors program in Physics provides outstanding students with the opportunity to do original research with a faculty sponsor. To graduate with Honors, the student must carry out a research project, write up the project as an Honors Thesis, and present the research results in a departmental seminar.

Admission to the Program

To be admitted to the track, a student must:

- Be admitted to the BS Physics program with a lower division GPA of at least 3.5 in science and math courses and an overall GPA of at least 3.2.
- Have completed at least 12 hours of physics courses.
- Have arranged to be sponsored by a faculty researcher.
- Submit a letter to the Physics Department requesting permission to pursue the honors course of study.

Graduation Requirements

1. Completion of all requirements for the BS Physics degree with a minimum GPA of 3.5 in science and math courses and overall GPA of 3.2.
2. Completion of honors research project in collaboration with a faculty advisor. The results of the research project must be written in the form of an honors thesis which is written in American Physical Society-style publication format. The faculty advisor and curriculum committee must judge the thesis as suitable in style and content.
3. Submission of two completed and approved copies of the Honors Thesis must be presented to the Physics department office; one copy is to be kept in the department and the second copy is to be housed in the University library.
4. The results of the research project must be presented orally to an audience of peers and faculty members in a departmental seminar.

Bachelor of Arts

Degree Program Hours: 120

This program prepares students interested in physics and planning to enter professional schools in business, education, journalism, law, and medicine, and for liberal arts students desiring a strong background in physical science but with career objectives in other areas. The flexible program offers the opportunity for parallel studies in another discipline and/or pre-professional preparation. Students wishing to pursue careers as professional

physicists or graduate study in physics should seek the Bachelor of Science degree in physics.

Lower Division Preparation

Required Courses

Common Prerequisites

CHM 1045	General Chemistry I	
CHM 1045L	General Chemistry Lab I	
CHM 1046	General Chemistry II	
CHM 1046L	General Chemistry Lab II	
MAC 2311	Calculus I	
MAC 2312	Calculus II	
MAC 2313	Multivariable Calculus	
PHY 2048	Physics with Calculus I	
PHY 2048L	Physics with Calculus Lab I	
PHY 2049	Physics with Calculus II	
PHY 2049L	Physics with Calculus Lab II	

Upper Division Program (60)

PHY 3106	Modern Physics I	3
PHY 3106L	Modern Physics Lab I	1
PHY 3107	Modern Physics II	3
PHY 3107L	Modern Physics Lab II	1
PHY 3513	Thermodynamics	3
PHY 4134	Widely Applied Physics I	3
PHY 4135	Widely Applied Physics II	3
Approved Upper Division Electives		15
Electives		28

Biophysics Concentration

This program prepares students interested in physics and planning to enter professional schools in medicine, biomedical engineering, and biomechanics as well as entry level biotechnology positions in industry and government. The flexible program offers the opportunity for parallel studies in another discipline. Students satisfying the degree requirements of this program will also have satisfied the course requirement for admission to medical schools. Interested students should consult the Pre-medical advisor at (305) 348-3084.

Lower Division Preparation

Common Prerequisites as Detailed Under the BA Degree

Additional Lower Division Courses (17)

BSC 1010	General Biology I	3
BSC 1010L	General Biology I Lab	1
BSC 1011	General Biology II	3
BSC 1011L	General Biology II Lab	1
CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry I Lab	1
CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry II Lab	1

Upper Division Program (60)

PHY 3106	Modern Physics I	3
PHY 3106L	Modern Physics Lab I	1
PHY 3107	Modern Physics II	3
PHY 3107L	Modern Physics Lab II	1
PHY 3513	Thermodynamics	3
PHY 4134	Widely Applied Physics I	3
PHY 4135	Widely Applied Physics II	3
PHY 4221	Mechanics I	3
PHY4905	Senior Physics Lab	3
PHZ 4710	Introduction to Biophysics	3
Physics Electives		6
Electives in Biology and Chemistry		12
Electives		16

Pre-med students are strongly encouraged to take:

BCH 3033	General Biochemistry	4
BCH 3033L	General Biochemistry Lab	1
	or	
CHM 4304	Biological Chemistry I	3
CHM 4304L	Biological Chemistry I Lab	1
PCB 3063	Genetics	3
PCB 3063	Genetics Lab	1
PCB 3702	Intermediate Human Physiology	3
PCB 3702L	Intermediate Human Physiology Lab	1

Business Concentration

This program prepares students interested in physics and planning to enter business and business management careers. Concentrates on the basic of business administration and also gain a thorough understanding of electronics, lasers, computers and other tools of the physicist.

Lower Division Preparation

Common Prerequisites as Detailed Under the BA Degree

Additional Lower Division Courses (9)

ECO 2013	Principles of Macroeconomics	3
ECO 2023	Principles of Microeconomics	3
ACG 2021	Accounting for Decisions	3

Upper Division Program (60)

PHY 3106	Modern Physics I	3
PHY 3106L	Modern Physics Lab I	1
PHY 3107	Modern Physics II	3
PHY 3107L	Modern Physics Lab II	1
PHY 3513	Thermodynamics	3
PHY 4134	Widely Applied Physics I	3
PHY 4135	Widely Applied Physics II	3
PHY 4905	Senior Physics Lab	3
Physics Electives		6
ACG 3301	Acc. for Planning and Control	3
CGS 3300	Introduction to Information Systems	3
FIN 3403	Financial Management	3
MAN 3025	Organization and Management	3
MAN 4602	International Business	3
MAR 3023	Marketing Management	3
Business Electives		3
Electives		13

Entrepreneurship Concentration

This program provides students with a strong background in physics as well as the skill set for starting and growing new high-tech business ventures. The curriculum encourages "hands on" interdisciplinary research in the form of an independent study course and an entrepreneurial science internship. It also provides the flexibility to tailor coursework to science and technology entrepreneurial activities. Graduates of this program will be well equipped to create their own high-tech jobs within existing companies as well as their own startup ventures.

Lower Divivion Preparation

Common Prerequisites as Detailed Under the BA Degree

Upper Division Program (60)

PHY 3106	Modern Physics I	3
PHY 3106L	Modern Physics Lab I	1
PHY 3107	Modern Physics II	3

PHY 3107L	Modern Physics Lab II	1
PHY 3513	Thermodynamics	3
PHY 4221	Intermediate Classical Mechanics I	3
PHY 4323	Intermediate Electromagnetism I	3
PHY 4604	Quantum Mechanics I	3
PHY 4134	Widely Applied Physics I	3
PHY 4135	Widely Applied Physics II	3
PHY 4905	Independent Study	3
PHY 4905	Senior Physics Lab	3
Physics Electives		6
GEB 4113	Entrepreneurship	3
ISC 4947	Entrepreneurial Science Internship	3
GEB 4110	Business Plan Development	3
	or	
GEB 4xxx	Technology Product and Service Development	3
Electives		13

Minor in Physics

This program is designed for students who desire additional capabilities in physics beyond the basic sequence. This program is especially recommended for chemistry, mathematics, and engineering/technology majors.

PHY 2048, PHY 2049	Physics with Calculus	8
PHY 2048L, PHY 2049L	Physics with Calculus Lab	2
PHY 3106, PHY 3107	Modern Physics	6
PHY 3106L, PHY 3107L	Modern Physics Labs	2
Additional approved courses		3

Minor in Astronomy

This program is designed for students who desire additional capabilities in astronomy. The program offers enhanced preparation for graduate studies in astronomy and astrophysics. It is also aimed at students interested in careers in science education, science centers, musea, and planetaria.

PHY 2048	Physics with Calculus I	4
PHY 2048L	Physics with Calculus Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	Physics with Calculus Lab II	1
PHY 3106	Modern Physics I	3
PHY 3106L	Modern Physics Lab I	1
AST 3213	Modern Astrophysics	3
AST 3722	Observational Astronomy	3
AST 3722L	Observational Astronomy Lab	1

Cooperative Education

Students seeking the baccalaureate degree in physics may also take part in the Cooperative Education Program conducted in conjunction with Career Planning & Placement. The student spends several semesters fully employed in an industrial or governmental physics laboratory. For further information consult the Department of Physics or Career Planning & Placement.

Course Descriptions

Definition of Prefixes

AST-Astronomy; MET-Meteorology PHS-Physics/Specialized; PHY-Physics; PHZ-Physics; PSC-Physical Sciences; ENU-Nuclear Engineering.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

AST 2003 Solar System Astronomy (3). General principles of Astronomy with emphasis on the structure and evolution of the Solar System, the laws of planetary motion, and the physical aspects of the sun, planets, and interplanetary debris. (F,S,SS)

AST 2003L Solar System Astronomy Laboratory (1). Laboratory section of AST 2003. Outdoor observing of the moon, planets and indoor exercises including celestial positions and time, the moon's orbit, planetary motions, comparative planetology. Corequisite: AST 2003. (Lab fees assessed) (F,S,SS)

AST 2004 Stellar Astronomy (3). General principles of Astronomy with emphasis on the structure and evolution of stars, stellar systems, galaxies and the universe. Topics include stellar birth and death, neutron stars and black holes, galactic distances and the expansion of the universe. (F,S,SS)

AST 2004L Stellar Astronomy Laboratory (1). Laboratory section of AST 2004. Outdoor observing of stars, constellations, binary and variable stars, star clusters, nebulae and indoor exercises including radiative properties of the stars, spectra, stellar and galactic distances, Hubble's Law. Corequisite: AST 2004. (Lab fees assessed) (F,S,SS)

AST 2037 Intelligent Life in the Universe (3). Examines the possibility of extraterrestrial life in terms of the probability of the existence of planets in other solar systems, the conditions necessary for life, and means of communication. (F or S)

AST 3213 Modern Astrophysics (3). An introduction to the structure of stars and galaxies and the evolution of the universe as a whole. Topics will include atomic spectra, stellar classifications, galactic structure, and cosmology. Prerequisites: PHY 2048, 2049. (F or S)

AST 3722 Observational Astronomy (3). Observational astronomical techniques from radio to x-rays including CCD Imaging, Photometry, and Spectroscopy.

AST 3722L Observational Astronomy Laboratory (1). The lab component associated with Observational Astronomy. Covers acquisition, reduction and interpretation of astronomical data using telescopes and computers. Corequisite: AST 3722.

AST 5215 Stellar Astrophysics (3) Topics in Stellar Astrophysics, in greater detail and depth than similar topics in AST 3213. Emphasis on current stellar structure, evolution models and the underlying observational data. Prerequisites: PHY 3107, PHY 3513, PHY 4324, PHY 4222 or equivalent. (F or S)

AST 5405 Extragalactic Astrophysics (3). Topics in extragalactic astrophysics, in greater detail and depth than similar topics in AST 3213. Emphasis on galactic structure and evolution, quasars and cosmology. Prerequisites: PHY 3107, PHY 3513, PHY 4324, PHY 4222 or equivalent. (F or S)

AST 5507 Celestial Mechanics (3). Principles of classical Newtonian mechanics applied to the motions of planets, satellites, and interplanetary space probes. Prerequisites: PHY 4222 or equivalent. (F or S)

ENU 4101 Introduction to Nuclear Reactors (3). An elementary course in nuclear fission reactor theory and power plant operation. An overview of the relevant nuclear

processes and their application to reactor design. Prerequisites: PHY 2048, 2049.

MET 2010 Meteorology and Atmospheric Physics (3). Physics of the Earth's atmosphere and weather including energy and heat transfer, radiation, temperature and pressure changes and the development of storms, atmospheric optical effects, and weather forecasting. Prerequisite: High school algebra. (F,S)

MET 2010L Meteorology and Atmospheric Physics Laboratory (1). Practical weather analysis including fronts, local severe weather, hurricanes, also elementary analyses and interpretation of weather maps, satellite imagery, radar data. Corequisite: MET 2010. (F,S)

PHS 4303 Nuclear Physics (3). A treatment of the current state of the nuclear theory problem and a discussion of modern experimental methods. Prerequisites: PHY 3106, 3107.

PHY 1020 Understanding the Physical World (3). A course to introduce non-science majors to the basic principles of the physical world with emphasis on understanding common devices, biological and medical applications, natural phenomena and sports. Prerequisite: one year high school or college algebra. (F,S)

PHY 1020L Understanding the Physical World Laboratory (1). Laboratory section of Understanding the Physical World. (F,S)

PHY 1033 First-Year Physics Seminar (1). Introduces activities, members, research and facilities of the Physics Department, curriculum choices, and physics career options to freshman through group discussions and faculty seminars. Repeatable for credit.

PHY 1037 Quarks, Superstrings, and Black Holes (3). Introduction to physics in the modern era for non-scientists. Topics include quantum mechanics, relativity, fundamental forces, and unification theory.

PHY 1037L Quarks, Superstrings, and Black Holes Laboratory (1). Laboratory to accompany Quarks, Superstrings, and Black Holes

PHY 2023 Survey of General Physics (3). Units, quantities, Newton's laws, work, momentum, fluids, heat, gas laws, waves, charge and current, electric fields, circuits, light, atomic and nuclear physics. Prerequisites: Algebra, trigonometry (high school). (F,S,SS)

PHY 2048 Physics with Calculus I (4). First in physics with calculus sequence. Covers kinematics, Newton's Laws, conservations laws, gravitation, fluids, sound, and thermodynamics. PHZ 2102 strongly recommended for problem solving skills. Pre or Corequisite: MAC 2312.

PHY 2049 Physics with Calculus II (4). Second in basic physics with calculus sequence. Covers electricity and magnetism, field theory, geometrical and wave optics. PHZ 2103 strongly recommended for problem solving skills. Prerequisite: PHY 2048. Pre or Corequisite: MAC 2312. (F,S,SS)

PHY 2048L, PHY 2049L General Physics Laboratory I, II (1,1). Laboratory sections of PHY 2048, 2049, PHY 2053, 2054. Prerequisites or Corequisites: PHY 2048, PHY 2049, PHY 2053, PHY 2054. (Lab fees assessed) (F,S,SS)

PHY 2053 Physics without Calculus I (4). First in physics without calculus sequence. Covers kinematics, Newtonian mechanics, properties of fluids, thermodynamics, and wave motion. PHY 2065 strongly recommended for problem solving skill. Trigonometry (MAC 1114 or equivalent) should be taken prior to or concurrently with this course.

PHY 2054 Physics without Calculus II (4). Second in basic physics without calculus sequence. Covers electricity and magnetism, geometrical and wave optics and the structure of matter. PHY 2166 strongly recommended for problem solving skills. Prerequisite: PHY 2053. (F,S,SS)

PHY 2065 Problem Solving in Physics without Calculus I (1). Supplemental course for Physics 2053 that teaches problem solving skills and reinforces concepts learned in the lecture. Corequisite: PHY 2053.

PHY 2166 Problem Solving in Physics without Calculus II (1). Supplemental course for Physics 2054 that teaches problem solving skills and reinforces concepts learned in the lecture. Corequisite: PHY 2054.

PHY 3106, PHY 3107 Modern Physics I and II (3,3). Recent developments in physics are discussed. Subject matter includes: review of classical physics, special relativity, four-vectors, wave-particle duality, the hydrogen atom, many electron atoms, nuclear instrumentation, nuclear structure, nuclear reactions, elementary particles, introduction to quantum mechanics, and solid state physics. Prerequisite: PHY 2049. (F) (Modern Physics I); (S) (Modern Physics II)

PHY 3106L, PHY 3107L Modern Physics Laboratory I and II (1,1). Laboratory courses to accompany Modern Physics I and II consisting of experiments in atomic and nuclear physics. Pre- or Corequisites: PHY 3106 and PHY 3107. (F) (Modern Physics Lab I); (S) (Modern Physics Lab II)

PHY 3272 Physics of Space Flight (3). Basic physics is used to describe the motions of space craft, with a discussion of various types of propulsion systems, including chemical methods, nuclear systems, electric and photon propulsion. Prerequisite: PHY 2049.

PHY 3424 Optics (3). General formulation of geometrical optics including matrix techniques, interference phenomena, and the theory of Fraunhofer and Fresnel diffraction are among the topics covered. Prerequisites: PHY 2048, 2049.

PHY 3465 Physics of Music (3). Provides an understanding of the physics behind sound, sound reproduction and electronics that are necessary for musicians to understand to take full advantage of modern electronic and musical equipment.

PHY 3513 Thermodynamics (3). Fundamental principles of thermodynamics, the first, second, and third laws, free energy, entropy, the chemical potential, phase rule and its applications. Prerequisites: PHY 2048, 2049, CHM 1045, 1046. (F)

PHY 3722 Electronics (3). Solid state theory and the theory of circuits, circuit operation and design in lecture and laboratory sessions. Prerequisites: PHY 2048, 2049.

PHY 3949, PHY 4949 Cooperative Education in Physics (1-3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student. (F,S,SS)

PHY 4134 Widely Applied Physics I (3). Applications of Physics principles to a diverse set of phenomena. Topics include material science, computers and electronics, nuclear physics and energy, astrophysics, aeronautics and space flight, communication technology, and medical physics and imaging. Prerequisite: PHY 3107.

PHY 4135 Widely Applied Physics II (3). Second of a two-course sequence. Will investigate materials science, nanotechnology, computers and electronics, nuclear physics and energy, astrophysics, aeronautics and space flight, communications technology, meterology, and medical physics and imaging. Course will focus on Chaos, Optical and Wireless Communications, High Temperature Superconductors. Prerequisite: PHY4134.

PHY 4221, PHY 4222 Intermediate Classical Mechanics I & II (3,3). Laws of motion, statics of particles and rigid bodies, motion of particles in one, two, and three dimensions, systems of particles, rigid bodies in a plane, central forces. Accelerated reference systems, rigid body in three dimensions, generalized coordinates, Lagrangian and Hamiltonian formulations of mechanics, vibrating systems, and normal coordinates. Prerequisites: MAC 2313, PHY 2048, 2049. (F) (Intermediate Classical Mechanics I); (S) (Intermediate Classical Mechanics II)

PHY 4323, PHY 4324 Intermediate Electromagnetism I and II (3,3). The theory of electromagnetic fields and waves is developed from basic principles. Vector calculus, Coulomb's law, Gauss's Law, electrostatic potential, dielectrics, solutions to Laplace's and Poisson's equations, magnetic induction, vector potential, magnetic materials, Maxwell's equations, and propagation of waves in space and various media are discussed. Prerequisites: MAC 2313, PHY 2048 and 2049.(F) (Intermediate Electromagnetism I); (S) (Intermediate Electromagnetism II)

PHY 4513 Statistical Thermodynamics (3). Review of the fundamental laws of thermodynamics applied to simple systems. Elementary kinetic theory of gases applied to diffusion, viscosity, thermal and electrical conductivity. Boltzmann, Fermi-Dirac and Bose-Einstein distribution functions applied in the Boltzmann limit to the calculation of thermodynamic variables. Prerequisites: MAC 2313, PHY 2048, 2049.

PHY 4604 Quantum Mechanics I (3). A comprehensive introduction to quantum mechanics. Wave mechanics applied to standard one dimensional problems and the hydrogen atom. Prerequisites: PHY 3107 or permission of the instructor and MAP 2302, MAC 2313, and PHY 2049. (F)

PHY 4605 Quantum Mechanics II (3). General matrix formalism, angular momentum, symmetries, perturbation theory and variational methods, an introduction to relativistic theory and theory of fields. Prerequisite: PHY 4604. (S)

PHY 4752C Introduction to Scientific Instrumentation (3). The student learns to set up and operate such standard pieces of laboratory apparatus as bridges, amplifiers, oscilloscopes, frequency counters, flowmeters, and thermocouple circuits utilizing chart recorders. A background in general physics is required.

PHY 4810L Senior Physics Lab (3). Advanced laboratory topics are treated. Modern physics laboratory equipment is used and the student is introduced to current laboratory practice. Prerequisites: PHY 2048 and 2049. (S)

PHY 4905, PHY 4906, PHY 4907 Independent Study (3). The student works under the supervision of a faculty member on subject matter of mutual interest. Instructor's permission is required.

PHY 4936, PHY 4937, PHY 4938 Special Topics (VAR). A study of topics of special physics interest.

PHY 5115 Mathematical Physics I (3). Methods of solution for problems in mathematical physics: Variational principles, complex variables, partial differential equations, integral equations, and transforms. Prerequisites: MAC 2313, MAP 2302. (F)

PHY 5116 Mathematical Physics II (3). Additional solution methods in mathematical physics: Perturbation methods, Laplace's and Poisson's Equations, waves, special functions, vector fields, vector waves. Prerequisite: PHY 5115. (S)

PHY 5140 Atomic Particle Interactions and Detection (3). Preparation for research utilizing particle detectors. Covers particle interactions with matter in scintillation, ionization, and semiconductor detectors for changed particles, neutrons, and photons. Prerequisites: PHY 3107 or permission of the instructor.

PHY 5141 Intermediate Modern Physics I (3). Prepares advanced undergraduate and beginning graduate students to start research in atomic, molecular, or optical physics. Topics may be adapted to students' research interests. Prerequisite: Permission of the instructor.

PHY 5142 Intermediate Modern Physics II (3). Continnuation of advanced undergraduate and beginning graduate student research preparation in atomic, molecular, optical or nuclear physics. Topics may be adapted to students' research interests. Prerequisite: PHY 5141.

PHY 5235 Nonlinear Dynamics and Chaos (3). Introduction to the universal behavior of classical systems described by nonlinear equations. Prerequisites: PHY 4222, MAA 4211. (F or S)

PHY 5240 Advanced Classical Mechanics (3). Advanced formulations of the equations of motion and their applications: the central field problem, rigid body dynamics, oscillations and continuous systems. Prerequisite: PHY 4222. (F)

PHY 5346 Advanced Electromagnetic Theory I (3). Advanced treatment of classical electromagnetism: Electrostatics, Green's function, Laplace's equation, multipole expansion, magnetostatics, Maxwell's equations, waves. Prerequisite: PHY 4324. (F)

PHY 5347 Advanced Electromagnetic Theory II (3). Additional topics in classical electromagnetism: Wave

guides, radiating and diffracting systems, Kirchoff's integral for diffraction, covariant formulation of field equations. Prerequisite: PHY 5346. (S)

PHY 5446 Laser Physics (3). Principles of lasers and laser applications, including atom-field interactions, stimulated emission and dipole oscillators, optical resonators and electromagnetic modes, semi-classical laser theory, and specific laser systems. Prerequisite: PHY 4605. (F or S)

PHY 5466 The Physics of Music (3). Provides music technology majors a physical understanding of sound, sound generation and reprodcution. Concentrates mainly on physical principles and less on calculation. Prerequisite: Permission of the instructor.

PHY 5667 Nonperturbative Quantum Field Theory (3). Euclidean QFT, renormalization group, local gauge symetry, lattice regularization, Wilson action, fermion fields, expansion schemes, numerical algorithms, hadron properties, recent developments. Prerequisite: PHY 4605.

PHY 5930 Seminar in Physics (1-3). A series of specialized lectures/seminars on selected topics in Physics/Astro-Physics. Prerequisite: Permission of the department.

PHY 5936 Special Topics Research (1-10). Participation in an original investigation in theoretical or experimental physics/astro-physics under direct faculty supervision. Prerequisite: Permission of the instructor.

PHY 5937, PHY 5938 Seminar in Special Topics (3). Seminar work under the supervision of a faculty member on subject material of mutual interest.

PHY 5940 Physics Graduate Teaching Workshop (1). The teaching of physics laboratories. Includes practice of lab experiments, use and adjustment of lab equipment and explanation of departmental grading policy. Supplemented by outside lectures on university policies. (F)

PHZ 2102 Problem Solving in Physics I (1). Supplemental course for Physics 2048 that teaches problem solving skills and reinforces concepts learned in the lecture. Corequisite: PHY 2048.

PHZ 2103 Problem Solving in Physics II (1). Supplemental course for Physics 2049 that teaches problem solving skills and reinforces concepts learned in the lecture. Corequisite: PHY 2049.

PHZ 3113 Methods in Theoretical Physics (3). Methods in theoretical physics and theoretical applications in physics. Includes analytic and numerical methods for differential equations, integral equations and transformations and other applications of real analysis. Prerequisite: MAC 2313.

PHZ 3422 Nanoscience and Nanotechnology (3). Introduction to the emerging nanoscience and nanotechnology, physical/chemical understanding of nanomaterials and nanostructures, basic skills and techniques for nanofabrication and characterization. Prerequisite: PHY 2049.

PHZ 4390 Nuclear and Particle Physics (3). Basics of Nuclear and Particle Physics, Nuclear forces, quarkgluon structure of hadrons, deep-inelastic scattering, qcd, nuclear and particle astrophysics, formation of quark-gluon plasma. Prerequisite: PHY 4604.

PHZ 4710 Introduction to Biophysics (3). Physical investigation of biological molecules with special reference to structure and function of protein, biomembranes and visual receptors. Prerequisites: PHY 3107 or CHM 3411.

PHZ 5130 Theoretical Treatment of Experimental Data (3). Statistical analysis of physical processes and statistical tests, with particular emphasis on instrumentation-related problems. Mathematical modeling and computer simulation. Prerequisites: Undergraduate statistics course or equivalent, or permission of the instructor.

PHZ 5156 Computational Physics I (3). Physical systems by means of computer simulation. Monte Carlo, molecular dynamics, percolation, random systems, chaos, criticality, guage fields. Prerequisites: PHY 5115 and PHY 5116.

PHZ 5157C Computational Physics II (3). Advanced computer simulation methods of physical systems. Application in chaos, nonlinear and random systems, criticality, field theory and practices. Prerequisite: PHZ 5156. Corequisites: PHY 5115 and PHY 5116.

PHZ 5234 Atomic and Molecular Collision Phenomena (3). Investigation of atomic and molecular collision phenomena: Kinetic theory, elastic scattering, inelastic scattering, excitation and ionization, heavy particle collisions. Prerequisites: PHY 4605 and PHY 4222. (F or S)

PHZ 5304 Advanced Nuclear Physics (3). Fundamental properties of nuclei, nuclear forces, nuclear models, radio-activity, weak processes and nuclear reactions. Prerequisite: PHY 4604. Corequisite: PHY 4605. (F or S)

PHZ 5370 Nanoscience (3). Overview of the nanoscience with emphasis on physical properties, such as electrical, magnetic and optical properties, of nanomaterials. Prerequisites: PHY 3106, PHY 3107.

PHZ 5405 Solid State Physics (3). Crystalline form of solids, lattice dynamics, metals, insulators, semi-conductors, crystalline surfaces, and amorphous materials. Prerequisites: PHY 3107 or CHM 3411. (F or S)

PHZ 5505 Low Energy Plasma Physics (3). The investigation of the kinetics of rarefied gases and thermal plasmas: Phase space, random currents, orbit theory, plasma sheaths, radiation, the pinch effect. Prerequisites: PHY 3513, PHY 4324, and PHY 4222.

PHZ 5506 Plasma Physics (3). An introduction to plasma fundamentals, the Boltzmann equation, the hydro-dynamic equations, orbit theory, the interaction of electromagnetic waves with plasmas, the pinch effect and instabilities. Prerequisite: PHY 2049.

PHZ 5606 Special Relativity (3). A detailed study of special relativity: Lorentz transformations, relativistic electrodynamics. Prerequisite: PHY 3107.

PHZ 5607 General Relativity (3). General relativity using differential geometry and tensor analysis. Topics include Einstein's field equations and their solutions, applications and observational tests. Black Holes and cosmology are also discussed. Prerequsites: PHY 4222 and PHY 4605.

Political Science

Richard Olson, *Professor and Chairperson*
Astrid Arrarás, *Lecturer*
Ronald Cox, *Associate Professor*
Clement Fatovic, *Assistant Professor*
Eduardo Gamarra, *Professor*
Kevin Hill, *Associate Professor and Undergraduate Advisor*
Antonio Jorge, *Professor*
Tatiana Kostadinova, *Assistant Professor and Graduate Director*
Russell Lucas, *Assistant Professor*
Dario Moreno, *Associate Professor and Director, Metropolitan Center*
Paul Mullen, *Assistant Professor*
Sarah Poggione, *Assistant Professor*
Nicol Rae, *Professor*
Mark Rosenberg, *Professor and Chancellor*
Rebecca Salokar, *Associate Professor*
John Stack, *Professor and Director, Institute for Public Policy and Citizenship Studies*
Judith H. Stiehm, *Professor*
Christopher Warren, *Associate Professor*

Bachelor of Arts in Political Science

Degree Program Hours: 120

The major in Political Science provides students a broad education that will equip them to adapt to a wide variety of careers. The program for majors is designed to encourage the analysis of theories, institutions, and processes of political systems in the context provided by the social sciences; to stimulate a grasp of the broad sweep of political science as a discipline; to develop a continuing and responsible interest in political activity and public affairs; to provide the opportunity to acquire a fundamental understanding of political science as a basis for citizenship, a career in government, or professional study and service; and to stimulate the qualified student's interest in graduate study in political science.

The curriculum is designed to expose students to the various areas of Political Science but also to allow for some specialization. Students are encouraged to create a blend of courses that fits their interests. Students should work with the undergraduate advisor in selecting courses.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including successful completion or waiver of the CLAST, 60 semester hours, and a minimum 2.0 Grade Point Average.

Curriculum for Political Science Majors

Students should obtain and read the "Political Science Advising Guide," available online on the Political Science website. A minimum of 30 credits of upper division work (3000 level and above) is required for a major in Political Science, of which 6 credits must be at the 4000 level (excluding independent study and internship credits).

In addition, two 2000 level courses are required for a student to meet both the department's prerequisite requirements for majors as well as the state mandated "Common Prerequisites"(see below). These courses should be taken as early as possible in preparation for upper division work in the major. POS 2042-American Government (or its equivalent) is required of all Political Science majors. This course will also meet one of the two state mandated Common Prerequisites. The second Common Prerequisite may be fulfilled by taking either CPO 2002 Introduction to Comparative Politics, **or** INR 2002 Dynamics of World Politics (or their equivalents). These requirements can normally be met through course work at the community college level or taken at FIU. Students should be mindful of the further requirement of the College of Arts and Sciences that a minimum of 48 upper division credits (3000 level and above) is necessary for graduation. Students also need to pass 9 hours in upper division courses outside Political Science and must satisfy the College of Arts and Sciences Foreign Language Requirement.

No specific upper division courses are required. Rather, courses in Political Science must be distributed so that five courses meet the Breadth Requirement and five other courses meet the Political Science Electives requirement, of which two (6 credits) must be at the 4000 level (excluding independent study and internship credits).

The student must earn a grade of 'C' or better in all Political Science courses credited toward the major. A grade of 'C-' will not fulfill the requirements of the major. Students choosing to major in Political Science must officially declare their major by completing applicable forms. Forms can be obtained online through the Office of the Registrar, or at the department.

Common Prerequisites

Common Prerequisites are those mandated by the state for Political Science majors. In order to conform with both state and departmental requirements, students must take the following:

POS 2042	American Government (or its equivalent)

and one of the following two courses:

CPO 2002	Introduction to Comparative Politics (or its equivalent)
INR 2002	Dynamics of World Politics (or its equivalent)

These courses do not count toward the 30 credits of upper division work required for the major.

Requirements for a Major

I. Breadth Requirement

This is designed to acquaint all majors with the five general fields of Political Science. One three-semester hour course must be taken in each of the following fields, for a total of 15 semester hours.

American Politics (AP)-This Breadth area can be met **only** by one of the following courses:

POS 3064	Federalism and Intergovernmental Relations	3
POS 3152	Urban Politics	3
POS 3413	The Presidency	3
POS 3424	The Legislative Process	3
POS 3443	Political Parties	3

Judicial Politics (JP)-This Breadth area can be met **only** by one of the following courses:

POS 3283	The Judicial Process	3
POS 3603	Constitutional Law: Powers	3
POS 3604	Constitutional Law: Limits	3

Comparative Politics (CP)—This Breadth area can be met **only** by one of the following courses:

CPO 3010	Comparative Politics Theory and

	Practice	3
CPO 3055	Authoritarian Politics	3
CPO 3103	Politics of Western Europe	3
CPO 3204	African Politics	3
CPO 3304	Politics of Latin America	3
CPO 3403	Politics of the Middle East	3
CPO 3502	Politics of the Far East	3
CPO 3643	Russian Politics	3

International Politics (IP)-This Breadth area can be met **only** by one of the following courses:

INR 3102	American Foreign Policy	3
INR 3203	World Politics	3
INR 3702	Politics of the World Economy	3

Political Theory and Methodology (PT)—This Breadth area can be met **only** by one of the following courses:

POT 3013	Ancient & Medieval Political Theory	3
POT 3054	Modern Political Theory	3
POT 3064	Contemporary Political Theory	3
POT 3204	American Political Thought	3
POT 3302	Political Ideologies	3

II. Political Science Electives Requirement

Five upper division Political Science courses (3000 level and above), of which two (6 credits) must be at the 4000 level are required (not from POS 4905, POS 4941, or POS 4944), for a total of 15 credits. No more than 6 credits in independent study and/or internship work can be applied toward the major, and these may not be counted toward the 4000-level requirement.

Combined BA/MA Degree Program in Political Science (the "4+1" Program)

Admission Requirements

1. Political Science majors with senior status (i.e. with 90 credit hours completed) must apply for a Master's degree by the end of the first semester of their senior year.
2. Students must have been admitted to the College of Arts and Sciences and must have passed or exempted from the CLAST exam.
3. A 3.5 GPA overall in college work, and a 3.75 GPA in Political Science courses taken at FIU are required.
4. Three letters of recommendation, at least two of which must be from FIU Political Science faculty, are required.
5. Students must meet admissions requirements for the MA in Political Science.
6. Finally, a favorable decision into the 4+1 program by the Political Science graduate committee is required.
7. Students will be awarded the B.A. degree upon completion of the B.A. requirements, prior to completing the requirements for the M.A. degree.

Common Prerequisites (2 courses/6 credits)

The common prerequisites are required introductory courses for the undergraduate major and should be among the first Political Science courses taken.

Two Common Prerequisite courses are required:

- **POS 2042 American Government** (or its equivalent) must be completed by all majors.
- EITHER, **CPO 2002 Introduction to Comparative Politics**, OR **INR 2002 Dynamics of World Politics** must be completed by all majors. Some transfer students will have already taken these or equivalent courses at other institutions, and should not repeat them at FIU. Students with questions about course equivalencies should contact the undergraduate advisor.

Breadth Requirement (5 courses/15 credits)

The Breadth Requirement is intended to expose majors to each of the five major sub-fields of Political Science. Complete one course in each of the following five breadth areas (may be completed in any order).

American Politics (AP) – Choose one of five:

POS 3064	Federalism
POS 3152	Urban Politics
POS 3413	The Presidency
POS 3424	Legislative Process
POS 3453	Political Parties

Judicial Politics (JP) – Choose one of three:

POS 3283	Judicial Process
POS 3603	Constitutional Law: Powers
POS 3604	Constitutional Law: Limits

Comparative Politics (CP) – Choose one of eight:

CPO 3010	Com. Pol.: Theory and Practice
CPO 3055	Authoritarian Politics
CPO 3103	Politics of Western Europe
CPO 3502	Politics of the Far East
CPO 3204	African Politics
CPO 3304	Latin American Politics
CPO 3403	Politics of the Middle East
CPO 3643	Russian Politics

International Politics (IP) – Choose one of three:

INR 3102	American Foreign Policy
INR 3203	World Politics
INR 3702	Politics of the World Economy

Political Theory (PT) – Choose one of five:

POT 3013	Anc. & Med. Pol. Th.
POT 3054	Modern Political Theory
POT 3064	Contemporary Political Theory
POT 3204	American Political Thought
POT 3302	Political Ideologies

Political Science Graduate/Undergraduate Electives Requirement (5 courses/15 credits)

Students in the 4+1 program will take five 3-credit Political Science courses to satisfy this requirement. ***Three of these courses (9 credit hours) must be 5000-level graduate courses.*** The other two courses must be 3000 or 4000-level Political Science classes. Students must be advised by the departmental Graduate Program Director before enrolling in these 5000-level courses.

The 9 hours of graduate credit taken to satisfy the undergraduate Political Science major requirement will also count as 9 credit hours toward the 30 hours of graduate courses required for the M.A. degree.

Minor in Political Science

POS 2042 (or its equivalent) is a prerequisite for a minor in Politcal Science. Beyond the prerequisite, the minor consists of any five upper division (3000 level and above) courses in Political Science, for a total or 15 upper division credits. All courses must be passed with a 'C' or better grade. A grade of 'C-' will not fulfill the requirements of the minor. Neither independent study nor internships will count toward the minor. Students should select specific courses in consultation with their major advisor and a Political Science advisor. Students must apply for a minor by

completing a Request for Minor Form and have it signed by their Major and Minor Advisors.

Pre-Law Students

The Department of Political Science recognizes the interests and needs of the undergraduate Political Science major who plans to attend law school. The basic skills important to such students include:

(1) how to think logically,
(2) how to read intelligently, and
(3) how to express oneself clearly.

These skills are developed in a number of disciplines. Beyond these basic skills, the department encourages interested Political Science majors to acquire a broad background in Political Science rather than to select only courses that deal with public law. The department publishes a pre-law handbook that addresses general questions for Political Science majors interested in pre-law, and the department's pre-law advisors will counsel these students on specific concerns.

In selecting electives, Political Science majors should remember that the LSAT, as well as law school require the ability to read with comprehension concepts and logic and to express oneself with clarity and precision. Whether or not a given major will benefit from a particular elective is a question best answered by the student in close consultation with an advisor. Courses in History, Philosophy, Economics, Sociology, Psychology, Math and English will probably all give relevant skills to Political Science majors interested in pre-law. Breadth of preparation is important. Whether a particular course in logic, writing or another area is the best choice can only be answered on an individual basis.

Public Affairs Internships

The Department is committed to providing opportunities for practical experiences in governmental and nongovernmental agencies. Four categories of internships are open to qualified students:

1. Judicial Internships (Prerequisites: POS 3283-Judicial Process or equivalent)

2. Legislative Internships (Prerequisites: POS 3424-Legislative Process or equivalent)

3. Campaign Internships (In election year). (Prerequisites: POS 3443-Political Parties, or POS 4233-Public Opinion)

4. Washington Center Internships (administered through the Washington Center, an organization providing opportunites for semester length programs of internship and coursework in Washington, D.C. See http://www.twc.edu for further information).

Standards for enrollment as an intern student include:

Enrollment is by permission of the instructor only. A student wishing to enroll as a public affairs intern should consult with the appropriate faculty member early in the preceding semester and receive written permission to enroll. A 3.0 GPA is required.

A Political Science major may count a maximum of six credit hours in internships toward his/her major.

All public affairs internships in Political Science will be on a Pass/Fail basis.

For further information on internships, contact the Political Science advisor.

Upper Division Transfer Credit

Students will generally receive transfer credit for junior and senior level courses in Political Science with a grade of 'C' or higher. While a student may transfer up to 30 credits of upper division work, the department will only accept 15 credits towards the Political Science curriculum. All decisions to recognize transfer credit rest with the department advisor or chairperson.

Undergraduate Advising

The Department of Political Science has an Undergraduate Advisor available to answer student questions regarding degree requirements, transfer credit, and graduation. All new majors and minors should make an appointment to meet with the Undergraduate Advisor in advance of their enrollment in the program. Prior to registering for their final semester of courses, graduating seniors should absolutely meet with the Undergraduate Advisor for a graduation check to review their records. Appointments for undergraduate advising are available through the department secretary. In addition, all Political Science faculty are willing to meet with students to discuss their academic work, the prospects of graduate studies and career planning.

Course Descriptions

Definition of Prefixes

CPO-Comparative Politics; INR-International Relations; POS-Political Science; POT-Political Theory; PUP-Public Policy; URP-Urban Planning.

Courses that meet the Breadth Requirements for the major are identified by subfield following the course title: (AP) American Politics; (JP) Judicial Politics; (CP) Comparative Politics; (IP) International Politics; and (PT) Political Theory.

CPO 2002 Introduction to Comparative Politics (3). Analysis of major theories of comparative politics including development, state building, institutions, patterns of political interaction and comparative elites. Focus on Latin America and the Third World.

CPO 3010 Comparative Politics: Theory and Practice (CP) (3). Examines major theories and methods of comparative politics, focusing on divergent political systems (Democracy, Authoritarianism, Totalitarianism). Countries/regions studied vary with instructor.

CPO 3055 Authoritarian Politics (CP) (3). The purpose of this course is to identify the conceptual and empirical characteristics of authoritarian regimes. An ideal typical authoritarian regime will be established, followed by case study analyses of modern authoritarian systems, like those of Brazil, Mexico, and Portugal. The course is designed to analyze the circumstances giving rise to non-totalitarian modern dictatorships, their political dynamics, and their survival capability.

CPO 3103 Politics of Western Europe (CP) (3). Studies of political systems of the major European countries on a comparative basis. Attention is focused on such factors as political party systems, the cabinet form of government, and the politics of the Common Market. Considers the implications of the impact of mass society on these nations. Enables the students to better understand the nations which have supplied many of the theoretical foundations of modern politics.

CPO 3104 Politics of the European Union (3). Traces the development of the governmental forms and structures

in the evolution of the European Union and compares them to governmental structures in other regional and global multinational organizations.

CPO 3204 African Politics (CP) (3). Compares the politics of Sub-Saharan Africa, and the Republic of South Africa and addresses questions of economic development, the colonial legacy, and the impact of traditional social patterns.

CPO 3304 Politics of Latin America (CP) (3). This course analyzes the multiple structures, processes, and groups which are relevant to an understanding of Latin American political economy. Of special interest are the political impacts of land and wealth inequality and economic dependency. The dynamics of Latin American politics are considered, with an emphasis on the role of the military and the church. Alternate strategies for modernizing the region are considered.

CPO 3403 Politics of the Middle East (CP) (3). This course will focus on the social, cultural, and political aspects of the Middle East region. Through an understanding and an interweaving of these complex facets, a student should gain a foundation and background for comprehension of the contemporary conflict which pervades this mercurial region.

CPO 3502 Politics of the Far East (CP) (3). An intensive examination of the major political institutions of China, Japan, and Korea. A critical analysis of changing aspects of traditional relationships in Far Eastern political culture and major reform movements in contemporary Far Eastern politics. Allows the student to better understand nations whose political development will be an important factor in global development.

CPO 3643 Russian Politics (CP) (3). Examines the political structure and institutions of Russia. Attention is paid to the historical and cultural aspects of the structure and use of power.

CPO 4034 The Politics of Development and Underdevelopment (3). This course is an analysis of the causes of development and underdevelopment in Third and Fourth World countries. It includes an analysis of major theoretical approaches to understanding development problems, as well as an analysis of the roles of major national and non-national actors.

CPO 4053 Political Repression and Human Rights (3). Examination of domestic factors resulting in political repression and violations of human rights. American, European, and South American examples will be used.

CPO 4057 Political Violence and Revolution (3). An examination of major historical instances and modern expressions of political violence; discussion of revolution from a comparative perspective. Attention will focus on the social origin and political determinants of such events.

CPO 4062 Comparative Judicial Politics (3). An examination of the various modes of dispute settlement and rule adjudication cross-culturally. Emphasis is on the similarities and differences of judicial behavior, judicial decision-making, judicial recruitment, and judicial powers in cross-national analysis.

CPO 4072 Comparative Electoral Behavior (3). Public opinion, voting choice, and electoral patterns from a comparative and historical perspective. Attention will focus on West Europe and Latin America. Differences from North American trends and patterns will also be detailed.

CPO 4102 European Union in World Politics (3). Examines comparatively the foreign policies of the European Union member states and of the EU, with special emphasis on EU-US (transatlantic) relations and the future of the EU in world politics.

CPO 4303 Politics of South America (3). A cross-national discussion of the political systems and cultures of the Latin American nations, with special emphasis on the larger countries. Attention is given to the role of the military and to the problem of violence. Designed to give the student an overview of the political life of the nations with whom we share this hemisphere.

CPO 4323 Politics of the Caribbean (3). Studies the political system of the major British, French, Dutch, and Spanish areas in the Caribbean basin. Attention is focused on such factors as political party democracies in a non-industrial setting. The paradoxes between modernity and tradition throughout the developing Caribbean, and the relationship between politics, economics, and culture are discussed. The student is helped to understand the dynamics of change in an important area of the world and to compare those dynamics with change in his own country.

CPO 4333 Politics of Central America (3). This course analyzes the historical and contemporary political dynamics of the five countries of Central America. Special attention is given to problems of development and modernization within the context of the region's economic dependence on the United States. Special attention is given to the problem of political restraints on the modernization process and to those regional arrangements which have been created to solve the area's problems. The student will develop a better understanding of a region which has close ties to the United States.

CPO 4340 Politics of Mexico (3). This course analyzes the structure and process of the Mexican political system from four perspectives: 1) Mexico's revolutionary heritage; 2) its formal governmental structure; 3) formal political relations; and 4) the structure and process of Mexican political economy.

CPO 4360 Cuban Politics (3). Examines the course of twentieth century Cuban politics. The course is sub-divided into five parts covering the three periods of relatively stable politics and the two major revolutions.

CPO 4401 The Arab-Israeli Conflict (3). This course provides the student with an introduction to the political roots of the Middle East conflict, and examines the dilemmas of finding a solution by focusing on the domestic and international constraints imposed upon the major actors.

CPO 4404 Politics of North Africa (3). An examination of the politics of the Arab-Islamic countries of North Africa. Attention is given to pre-colonial politics and subsequent European penetration as bases for understanding contemporary politics.

CPO 4461 Politics of Eastern Europe (3). An examination of the historical and contemporary political dynamics of the countries of Eastern Europe. Special

attention is given to the process of "democratization" and the effort to move towards a liberal-democratic, capitalist order.

CPO 4507 Comparative Political Economics of Asia (3). Introduction to the political economy of East and Southest Asia. Course is segmented into three parts: overview of Asia Pacific; survey of specific countries; and trends and transformations.

CPO 4541 Politics of China (3). This course introduces students to China's political history from 1840 and analyzes politics in the People's Republic of China with special emphasis on political and economic development, socio-economic and political conflict, ideology, and foreign policy.

CPO 4553 Government and Politics of Japan (3). Introduction to Japanese politics. Special attention is given to the Japanese variant of democracy, the capitalist state, and foreign policy.

CPO 4725 Comparative Genocide (3). A comparative anaylsis of the pre-conditions and processes associated with major cases of 20th century genocide, including Armenia, Germany, Cambodia, Bosnia, and Rwanda.

CPO 4741 Comparative Political Economy (3). Examines the theoretical approaches used to assess the relationship between political institutions and private economic interests in advanced, industrial countries and the less developed world.

CPO 4930 Topics in Comparative Politics (3). An intensive examination of a topic in comparative politics. Subject matter varies according to the instructor. Topic to be announced in advance.

CPO 4955 Politics of the Czech Republic: Study Abroad (3). Examination of Czech political system, its history and current constitutional structure. Course is taught by FIU and Czech faculty with significant study abroad component.

CPO 4956 Constitutional Politics of the Czech Republic: Study Abroad (3). An examination of the development of individual rights in the Czech Republic in a study abroad setting. Particular attention to issues of liberty and equality.

CPO 4957 Czech Republic in the Global Arena: Study Abroad (3). Examination of the global political environment of the Czech Republic. Special attention to external factors, internal demands and the political, economic and social forces that impact foreign policy decisions.

CPO 5036 Politics of Development (3). This course examines divergent explanations for development and underdevelopment. Of central importance are the concepts and theories which emphasize the political dimensions of development, including theory and concept, processes of development, and actors in the development process.

CPO 5091 Seminar in Comparative Politics (3). A foundation in the development of the field of comparative politics and in the major schools of thought that have molded the perspectives on comparative political analysis.

CPO 5325 Politics of the Caribbean (3). Examines the structural and institutional aspects of the politics of the Caribbean in both domestic and international contexts. Prerequisite: Graduate standing.

CPO 5934 Topics in Comparative Politics (3). A rigorous examination of a topic in comparative politics. Subject matter varies according to instructor. Topic will be announced in advance.

CPO 5936 Seminar in Comparative Political Parties (3). Students read and discuss major works on parties by conservative, liberal, and marxist authors.

INR 2002 Dynamics of World Politics (3). An examination of the political forces which shape the actors, institutions, and processes of world politics. Special attention is given to the role of transnational forces.

INR 3102 American Foreign Policy (IP) (3). An examination of the legal, administrative, and political structure by which American foreign policies are formulated and implemented. Includes a discussion of the objectives and consequences of United States foreign policy in selected regional, social-economic, and ideological areas. Enables the student to understand the procedures by which foreign policy is made and implemented in the United States.

INR 3203 World Politics (IP) (3). Overview of competing theories and methods used in the study of world politics. Accompanying focus on the changing world system in the post cold war era.

INR 3702 Politics of World Economy (3). The politics of world economy with emphasis on the role played by transnational political/economic institutions.

INR 4084 Ethnicity in World Politics (3). This course examines the political dimensions of ethnic conflict from a comparative perspective. It evaluates the dynamics of ethnic conflict in Western Europe, Africa, Latin America, and the United States, through a series of case studies.

INR 4204 Comparative Foreign Policy (3). This course is an analysis of the development of the foreign policy-making process in the United States, Britain, France, West Germany, and Italy. Particular attention is directed to the domestic and international factors which affect the making of foreign policy.

INR 4244 Latin America in World Politics (3). This course will be primarily concerned with Latin America's role in the world political system. Of special interest will be the impact of the North-South split on Latin America, and in particular Latin America's relationship to the United States. Key issues of international politics concerning Latin America, including the Panama Canal, will be selected for study.

INR 4350 International Environmental Politics (3). Addresses environmental politics from an international perspective. Ecological problems and issues are becoming international, environmental problems are crossing national borders, and public attitudes Prerequisites: Introduction to International Relations and Introduction to Environmental Science (recommended).

INR 4501 Multinational Organizations (3). The course examines contemporary international politics through an analysis of inter-governmental and non-governmental

actors. It emphasizes the prominent role played by increasing levels of transnational relations, interdependence, and global dominance in world politics.

INR 4521 Politics of Regional Integration (3). Examines regional economic blocs - European Union, NAFTA and Pacific Rim. Forces influencing regional integration and effects on global trade are studied.

INR 4926 Model United Nations (3). Students participate in a UN simulation. Attention is given to the workings of the UN, negotiating skills, and critical international issues. Prerequisite: Permission of the instructor.

INR 4933 Topics in International Politics (3). An intensive examination of a topic in international politics. Subject matter varies according to the instructor. Topic to be announced in advance.

INR 5007 Seminar in International Politics (3). An advanced graduate course designed to give students a specialized knowledge of the classics in international politics. The course traces the development of international politics from Thucydides to the present.

INR 5036 Politics of Globalization (3). Intensive examination of state and global institutions that have shaped the process of economic globalization. Topics include impact on sovereignty, human rights, labor and agenda-setting of large and small nation-states.

INR 5087 Ethnicity and the Politics of Development (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics.

INR 5105 American Foreign Policy (3). Compares different perspectives in foreign policy analysis. Provides a comprehensive understanding of major issues in U.S. policy.

INR 5934 Topics in International Politics (3). A rigorous examination in international politics. Subject matter varies according to instructor. Topic to be announced.

POS 2042 American Government (3). Power distribution and policy-making in U.S. Topics include political change; role of majorities; minorities; media, elections in U.S. politics; national institutions; and Florida state and local government.

POS 2690 Law, Politics and Society (3). Introduction to the role of law in American life. Topics include law as a tool for social control, dispute settlement and social change; the tension between rights and community; and the rule of law.

POS 3064 Federalism and Intergovernmental Relations (AP) (3). An introduction to modern theories of federalism, with an emphasis on how federalism has evolved in the United States. Constitutional structures and intergovernmental relations may also be emphasized.

POS 3152 Urban Politics (AP) (3). An examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is placed on how urban problems are identified; and the way proposed solutions are formulated, legitimatized, and administered by urban policy-making processes. Includes a discussion of urban political culture. Enables the student to understand major problems confronting communities in urban areas.

POS 3283 The Judicial Process (JP) (3). An introduction to the study of public law. Examines the relationship between politics and judicial structure and process. Emphasizes the judicial system as a particular kind of policy-making system, and evaluates its strengths and weaknesses from a policy-making perspective.

POS 3413 The Presidency (AP) (3). An examination of the various interpretations of the Presidency. Attention is directed to the role of the President in a technocratic society. Enables the student to understand one of the most visible political institutions.

POS 3424 The Legislative Process (AP) (3). Examines the context and process of legislative decision-making, including the impact of elections, groups, bureaucracies, and the norms of legislative behavior. Evaluates legislatures in light of various theories of representation and conflict-management.

POS 3443 Political Parties (AP) (3). Studies the internal structure, political functions, and behavior of modern political parties. Attention is given to the relationships between political parties and various economic, ethnic, and regional interest. Enables the student to understand the problems of expressing and structuring political demands to facilitate or obstruct governmental decision making.

POS 3603 Constitutional Law: Powers (JP) (3). An examination of the basic principles of American government, as defined through constitutional law. Focus will be on the nature of the union, federalism, national government powers, separation of powers, state government powers, and powers of the respective branches of government.

POS 3604 Constitutional Law: Limitations (JP) (3). An examination of the limitations on government as defined by the Supreme Court through constitutional law. Focus will be on the limitations of government with respect to the rights of the individual, of groups, and of the states. Particular attention will be paid to civil rights, civil liberties, the rights of the accused, political rights, and economic liberties.

POS 3703 Methods of Political Analysis (3). An introduction to the principal concepts and techniques of data collection and organization in political science. Includes practical exercise in data collection and organization. Highly recommended for those planning graduate study.

POS 4034 Political Change in America (3). Analysis of theories of political change in America and their application to major political movements from the 1960's to the present.

POS 4071 Corporate Power and American Politics (3). An examination of the formal and informal linkages between the private and public sectors and the sets of relationships which govern each. Particular attention is devoted to the exploration of the political role of business and the close but uneasy relationship between private enterprise and democracy.

POS 4073 The Military and the Citizen (3). Examines the U.S. military as a basic governmental institution, its relationship to civilians/citizens, and its post World War II history.

POS 4074 Latino Politics (3). Presents an overview of the role of Hispanics in the U.S. political system. It explores the historical and socio-economic dimensions of Latino politics.

POS 4122 State Government and Politics (3). A study of the political processes, structure, and development of state systems. This course attempts to provide the student with an understanding of the basic structure of state government and political processes.

POS 4152 Conflict and Change in American Cities (3). A study of social conflict in American cities. Emphasis is on how urban problems are identified and proposed solutions are formulated, legitimized and administered by policy-making processes.

POS 4154 Topics in Urban Politics and Policy (3). An intensive examination of a topic in urban politics and policy. Subject matter varies according to instructor. Topic will be announced in advance.

POS 4173 Politics in the American South (3). An examination of the politics of the American South with particular attention to the role of political parties, the Civil Rights movement, and the impact of Reconstruction.

POS 4182 Florida Politics (3). Provides analysis of the state and county politics of Florida. Special emphasis is placed on the regionalism inherent to politics in the state.

POS 4188 Miami Politics (3). Examines the politics of Miami-Dade County. Topics include functioning of Metro government, theories of politcal power, politics of ethnicity and class, growth politics, and political corruption.

POS 4205 American Political Culture (3). Examines American political culture and the forces that share it. Specific focus on competing theories, and the role of political socialization, ideology, the economy, media, and schooling.

POS 4233 Public Opinion (3). Examines the social and psychological factors shaping contemporary American public opinion. Emphasis on the collection and analysis of data from opinion polls.

POS 4284 Judicial Behavior (3). An examination of various approaches, theories, and findings on the behavior of judicial actors, particularly as it relates to judicial decision-making. The focus of the course will be on judges, lawyers, prosecutors, and other relevant actors in the judicial process.

POS 4314 American Ethnic Politics (3). This course examines American ethnic politics from conceptual and substantive perspectives. Special attention is devoted to the theoretical dynamics of ethnicity as well as an intensive investigation of Irish, Italian, Jewish, and Black ethnic politics.

POS 4463 Interest Group Politics (3). An examination of the various types of voluntary associations which seek to influence the political process. Special attention is given to the role of private power in a pluralist system. Enables the student to understand the ambivalent American attitude towards pressure groups and lobbying activities in the legislative and administrative arenas.

POS 4605 Gender Justice (3). The development of gender law in the U.S. and legal strategies by which courts both initiate and respond to demands for social change. Emphasis on various legal definitions of justice and equality.

POS 4606 The U.S. Supreme Court (3). Intensive study of U.S. Supreme Court, its internal processes, decision-making, personalities, and the impact of its decisions. Relationships with other federal branches and participants are also examined.

POS 4622 Race and Law in the U.S. (3). Examines U.S. legal development of racial issues by focusing on political, economic and social rights from founding to contemporary times. Underlying theme asks whether courts are appropriate agents of social change.

POS 4627 Equality and the Constitution (3). An examination of the Supreme Court's interpretations of the Constitution in relation to social and political equality. Questions of equal justice pertaining to race, alienage, gender, sexual orientation, political representation, and economic status are explored.

POS 4684 Politics of Voting Rights (3). Analyzes the development of the right to vote in the United States. Major emphasis is on Supreme Court decisions and federal laws.

POS 4784 Analytic Writing in Political Science (3). Develops and refines skills necessary for effective written communication. Focus on inductive research and analysis process. For professions where analytic and writing skills are expected and valued.

POS 4905 Independent Study (3). Designed for advanced students who wish to pursue specialized topics in political science. Arrangements must be made with instructor during the prior semester.

POS 4930 Topics in Public Law (3). An intensive examination of a topic dealing with public law. Subject matter varies according to instructor. Topic will be announced in advance.

POS 4931 Topics in Politics (3). An intensive examination of a topic in politics. Subject matter varies according to instructor. Topic will be announced in advance.

POS 4935 Honors Seminar (3). A rigorous examination of a political topic designed for advanced political science majors. Subject matter varies according to instructor. Topic to be announced in advance.

POS 4941 Legislative Internship (1-20). An opportunity for the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between the student and advisor.

POS 4944 Judicial Internship (1-20). An opportunity for the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between the student and advisor.

POS 4945 Executive Internship (1-12). An opportunity for students to engage in policy or constituent work in a chief executive's setting. Assignment will be individually tailored to the student's interest and background. Prerequisites: POS 3152, POS 3413, or POS 3443 or equivalent.

POS 5045 Seminar in American Politics (3). The advanced study of U.S. politics. Students read and discuss the major works and theories concerning American politics and government.

POS 5146 Seminar in Urban Politics (3). Examination of processes by which urban areas are governed. Emphasis is on conflicts over structures, power, policy and the politics of ethnicity and class.

POS 5158 Topics in Politics (3). Subject matter varies according to instructor.

POS 5208 Seminar in Political Behavior (3). Analyzes the literature in political behavior. Special emphasis is on voting, socialization, attitudes, partisanship, campaigning, the media, and political participation in the developed democracies. Prerequisite: Seminar in Political Science Methodology.

POS 5326 Seminar in Class Analysis (3). The theoretical and empirical issues associated with class divisions in contemporary societies. Theoretical debates regarding definitional problems of class identity and empirical case studies highlighting class conflict and stratification.

POS 5447 Seminar in U.S. Political Parties (3). Students read and discuss the major works and theories on U.S. Political Parties.

POS 5638 Topics in Public Law (3). A rigorous examination of a topic in public law. Subject matter varies according to instructor. Topic will be announced in advance.

POS 5702 Teaching Political Science (1). Introduces graduate students to the pedagogical and practical aspects of teaching political science. Topics will include selecting books, writing a syllabus, lecturing, running discussion groups, and testing and grading. Covers professional ethics, and student rights and responsibilities.

POS 5706 Methodology (3). This course is an introduction to the principal concepts and techniques of quantitative and non-quantitative methodology in the Social Sciences. It is designed to familiarize the student with the language and format of quantitative and non-quantitative applications in order to permit students to deal effectively with the literature of their field.

POS 5716 Foundations of Political Science (3). Prepares students for the advanced study of politics. Areas of study include history of Political Science as a discipline, comparison of classical and modern sciences of politics and realpolitik, epistemological foundations.

POS 5785 Writing Professionally in Political Science (3). Focus on inductive research process. Refines technical skills for effective written communication. Best practice examples for preparing briefing papers, articles, books, and grant applications.

POS 5909 Independent Study (3). Designed for advanced students who wish to pursue specialized topics in political science. Arrangements must be made with instructor during prior semester.

POS 5932 Topics in Urban Politics (3). An extensive examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is on the ways in which urban problems are identified and proposed solutions formulated, legitimatized, and administered by urban policy-making processes, includes a discussion of urban political culture. Enables the student to understand the major problems confronting communities in urban areas.

POT 2002 Introduction to Political Theory (3). Introduction to various ways of thinking about the political. Includes an examination of explanations offered for political phenomena and an analysis of political prescriptions. Special attention given to assumptions underlying political beliefs.

POT 3013 Ancient and Medieval Political Theory (PT) (3). A study of the major political philosophers of the ancient and medieval periods. Primary emphasis is given to the Greek experience. The nature of political theory as a tradition of discourse is examined. Written work meets state composition requirement of 6,000 written words.

POT 3054 Modern Political Theory (PT) (3). An analysis of the thought of the great political thinkers since Machiavelli, culminating with the nineteenth century theorists. Basic themes and ideas common to all these political theorists will be discussed in detail. The problem of 'modernity' will receive special attention.

POT 3064 Contemporary Political Theory (PT) (3). An overview of the major conceptual frameworks used by political theorists to describe, explain, and evaluate political behavior and processes. Stress is placed on political theory, not only as a basis for inquiry, but also as a base for political action. This course enables the student to develop analytical abilities with which to interpret the political events of his or her time.

POT 3204 American Political Thought (PT) (3). An examination of American political thought from its 17th century origins to the contemporary period. The continuities and discontinuities in the development of American political ideas since colonial times will receive special attention.

POT 3302 Political Ideologies (PT) (3). An analysis of modern political ideologies since the French Revolution, including liberalism, conservatism, and socialism. Particular emphasis will be given to Marxism. The contemporary link between ideology and totalitarianism will be examined.

POT 3304 Feminist Political Theory (3). Provides a fundamental understanding of feminist political theory since 1950 with an emphasis on U.S. thought. Concepts explored include equality, equity, and representation.

POT 4309 Sex, Power and Politics (3). Theories are examined that explain differences between women's and men's power in the political arena. Their internal consistency and "fit" with reality are also explored.

POT 4311 Problems of Democracy (3). Examines various theories and critiques of democracy in modern political thought with an emphasis on contemporary

problems in democratic theory and practice. Prerequisite: POS 2042.

POT 4344 Class, Race and Sports (3). Examines the political structure of organized sports with a concentration on issues of class and race. Theories explore the relationship between owners, players and fans in modern sports.

POT 4621 Theories of Justice (3). An analysis of major theories of justice from Plato to the present. Emphasis on the implications of theory for U.S. constitutional law, the role of judges, and the nature of the good society.

POT 4930 Topics in Political Theory (3). An intensive examination of a topic in political theory. Subject matter varies according to instructor. Topic will be announced in advance.

POT 5007 Seminar in Political Theory (3). An examination of writings from a diverse list of some of the major political theorists in the western tradition from antiquity to the present.

POT 5307 Feminist Political Theory (3). Examines feminist political theory in the second half of the twentieth century with the focus on the work of U.S. scholars.

POT 5934 Topics in Political Theory (3). An intensive examination of selected topics dealing with political theory. Subjects will vary, depending upon the desires of students and faculty. Allows the student to choose topics of particular interest to him or her.

PUP 4004 Public Policy: U.S. (3). An intensive examination of the theory and practice of formulating, legitimatizing, administering, and evaluating public policy. Includes a discussion of the role of administrators, legislators, courts, interest groups and political parties in their processes. Gives the student an analytical basis for understanding and participating in the making of public policy in a variety of policy areas. Prerequisite: Prior work in American institutions: The Congress, Presidency, or Judicial.

PUP 4203 Environmental Politics (3). Examines US environmental politics in terms of political institutions.

PUP 4323 Women in Politics (3). Examines the role of women in the political system as they act within, and are affected by, politics. Special attention to current and enduring political issues which particularly affect women.

PUP 5934 Topics in Public Policy (3). A rigorous examination of a topic in public policy. Subject matter varies according to instructor. Topic will be announced in advance.

Psychology

Mary Levitt, *Professor and Chairperson*
Lisa Arango, *Lecturer*
Lorraine Bahrick, *Professor*
Steve Charman, *Assistant Professor*
Joan Erber, *Professor*
Gordon Finley, *Professor*
Ronald Fisher, *Professor*
Leslie Frazier, *Associate Professor, Director of Undergraduate Studies*
Arlen Garcia, *Visiting Lecturer*
Jacob Gewirtz, *Professor*
Nathan Hiller, *Assistant Professor*
James Jaccard, *Professor*
William Kurtines, *Professor*
Robert Lickliter, *Professor and Director of Graduate Studies*
Gary Moran, *Professor Emeritus*
Kevin O'Neil, *Assistant Professor*
Vicky Pace, *Visiting Assistant Professor*
Janat Parker, *Professor*
Suzanna Rose, *Professor*
Bennett Schwartz, *Professor*
Nadja Schreiber, *Assistant Professor*
Maria Shpurik, *Lecturer*
Wendy Silverman, *Professor*
Dionne Stephens, *Associate Chairperson*
Paige Telan, *Visiting Lecturer*
Jonathan Tubman, *Professor*
Chockalingam Viswesvaran, *Professor*
Ryan Winter, *Assistant Professor*

Bachelor of Arts

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisites

BSC 2023	Human Biology
PSY 2020	Introduction to Psychology
DEP 2000	Human Growth and Development
	or
DEP 2001	Psychology of Infancy and Childhood
	or
CLP 2001	Personal Adjustment
	or
INP 2002	Introductory Industrial/Organizational Psychology
	or
SOP 2772	Psychology of Sexual Behavior
STA 2122	Introduction to Statistics I

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

I. Coursework for the Major: 36 credit hours are required (grade of "C" or better required). Students must complete the Research Sequence (12 credits), Area Requirements (15 credits), Psychology Electives (9 credits), and Upper Division General Electives (24 credits).

1. Research Sequence: (12 credit hours total). Students must take these three courses in the following order.

A. STA 3123 Introduction to Statistics II 4
Note: Because the three courses in this component of the program must be taken in sequence, the first course (STA 3123) should be taken no later than the first semester of the junior year.
Note: COP 2210 is recommended for students planning to enter graduate school.
B. PSY 3213 Research Methods in Psychology *(Prerequisite: STA 3123)* 3
C. Advanced laboratory or field experience *(Prerequisites: STA 3123 and PSY 3213)* 5

Students may choose from the following senior labs. All students must register for both the lecture and the laboratory.

CYP 4953	Community Field Experience
DEP 4704	Developmental Psychology
DEP 4720	Psychosocial Interventions
EAB 4034	Advanced Behavior Analysis
EXP 4005	Advanced Experimental
EXP 4214	Human Perception
EXP 4404	Learning and Remembering
INP 4055	Industrial/Organizational
SOP 4714C	Environmental and Behavior
PSY 4932	Human Communication
SOP 4214C	Experimental Social
SOP 4214L	Experimental Social
CLP 4135	Experimental Health
CLP 4135L	Experimental Health

2. Area Requirement Courses: (15 semester hours) Students are required to take one course from each are requirement.

Area A: Experimental
EXP 3523
EXP 4204
EXP 4604
EAB 3002
PSB 4002

Area B: Social
SOP 3004
SOP 4522
SOP 3742
SOP 4414
SOP 4525

Area C: Applied
CYP 3003
INP 4203
PSY 4302
CLP 4314
SOP 4712
INP 4313
SOP 4842
EAB 4794

Area D: Personality/Abnormal
EXP 3304
CLP 4374
CLP 4144
CLP 4134
PPE 3003
EAB 3765

Area E: Developmental
DEP 3115
DEP 3405
DEP 3404

DEP 4014
DEP 4164
DEP 4464
SOP 3015
DEP 4046

3. Required Psychology Course Electives: (9 credit hours)

Any psychology course taken for a letter grade can be used to fulfill the requirement for electives. These courses must be upper level (3000 or 4000) courses. Students have at least 36 credits hours in total of upper division hours for the psychology major.

4. Electives to Complete the requirement of 60 credit hours: (24 credit hours). At least 9 credit hours of upper division electives outside Psychology. The remaining 15 credit hours may be upper division Psychology electives.

Students may, with the permission of the instructor, take PSY 4900, 4914, and PSY 4916, which are given Pass/Fail grades. These courses can not count in the category of Required Psychology Electives, but they can be used as additional credit towards graduation.

Please Note: (1) The student is strongly urged to contact the Psychology Department for advisement in curriculum planning; (2) Psychology majors are allowed to transfer a maximum of ten upper division semester credit hours toward the psychology degree.

Bachelor's Degree with Honors

Application must be made and departmental approval granted, to undertake an independent project which must be approved by and carried out under the supervision of a member of the Department. Upon completion of the study, a satisfactory oral defense of the work must be presented to a Department committee.

Note: The Bachelor's degree offered in this program is a liberal arts degree and not a professional degree. While it is possible to concentrate courses in one's area of interest, it is not possible at the present time to obtain a 'professional specialization' at the undergraduate level in psychology.

Minor in Psychology

A Minor in Psychology requires 15 upper division semester hours of approved psychology credits. Students seeking the minor must meet with a psychology faculty member for advisement and should file with the Psychology Department a written notice of intention to minor in psychology. A grade of 'C' or higher is required in all courses counted toward the minor.

Course Descriptions

Definition of Prefixes

CLP-Clinical Psychology; CYP-Community Psychology; DEP-Developmental Psychology; EAB- Experimental Analysis of Behavior; EXP-Experimental Psychology; INP-Industrial and Applied Psychology; LIN- Linguistics; PCO-Psychology for Counseling; PPE-Psychology of Personality; PSB-Psychobiology; PSY-Psychology; SOC-Sociology; SOP-Social Psychology; SPA-Speech Pathology and Audiology

CLP 2001 Personal Adjustment (3). Study of personal adjustment in the social and occupational life of the individual. Emphasis on interpersonal aspects of effective behavior.

CLP 4134 Childhood Psychopathology (3). Various forms of abnormal behavior in infancy, childhood, and adolescence are examined within the context of traditional and contemporary psychological theory. Problems of differential diagnosis and forms of remediation are discussed.

CLP 4144 Abnormal Psychology (3). Various forms of behavior pathology are examined in the light of traditional and current concepts of mental health and illness. Problems of diagnosis and treatment are discussed. The role of social mores is examined.

CLP 4314 Psychology of Health and Illness (3). Course provides an overview of the field of behavioral medicine, psychological factors in illness, health, and health delivery systems will be covered. Prevention and early intervention will be stressed.

CLP 4315 Experimental Health Psychology Lecture (2). CLP 4315L Experimental Health Psychology Lab (3). The methodological tools to design, conduct, analyze, and interpret a study of some aspect of health and illness. Lectures provide an overview of theory in health psychology and labs provide opportunities to operationalize theories and constructs in psychology. Prerequisites: Students must register for both CLP 4315 & 4315L, PSY 2020, STA 2122/3123 and PSY 3213.

CLP 4374 Psychotherapy (3). Current approaches to the treatment and improvement of psychological disorders are critically surveyed. Emphasis is placed on the examination of the various techniques of psychotherapy and behavior therapy. Broader strategies of prevention and mental health promotion like consultation, counseling, and programmed agency services are also studied.

CLP 4444 Personality Disorders (3). Studies personality disorders according to current concepts of mental health and illness. Emphasis given to current theoretical and diagnostic categories. Prerequisite: CLP 4144.

CLP 5166 Advanced Abnormal Psychology (3). Advanced study of the causes, psychopathology manifestations, and social and personal consequences of behavior disturbance. Emphasis is placed on the critical examination of current research on the biological, psychological, and social aspects of these disorders. Clinical approaches to diagnosis, course, and prognosis in the contemporary mental health context (including 'practicum' assignments if feasible) are covered.

CLP 5169 Proseminar in Developmental Psychopathology (3). A comprehensive review of topics in developmental psychopathology including history, scope, methods, individual and contextual influences, developmental course, long-term outcomes, and resilience. Prerequisites: Graduate standing or permission of the instructor.

CLP 5175 Personality Dynamics (3). A review of different approaches to the study of personality. Prerequisites: Successful completion of a course in theories of personality, or equivalent. Permission of the instructor.

CLP 5185 Current Issues in Mental Health (3). A critical, intensive examination of selected, important issues in mental health. Emphasis is given to the empirical study of contemporary problems related to the making of mental

patients; planning, programming, and administering mental health services; political, ethical, and legal constraints on the operation of mental health facilities; interdisciplinary cooperation among helping and human service professionals; and evaluation of preventive care and treatment services. Prerequisites: Abnormal Psychology or permission of the instructor.

CLP 5931 Ethical Code in Psychological Practice (3). Ethical principles, rules, procedures of Psychologists. Clinical appliation and incorporation of the principles into professional interactions. Ethical reasoning is emphasized.

CYP 3003 Introduction to Community Psychology (3). An introduction to the issues and scope of Community Psychology. Students will be exposed to the development of Community Psychology as a growing discipline. Particular emphasis will be placed on the role of the community psychologist as an agent of social change.

CYP 4953 Community Psychology Field Experiences I (5). Students will be organized into task-oriented teams or will work independently in the community, for the purpose of becoming familiar with various community institutions and developing an action plan for assisting institutions in implementing change. Prerequisites: PSY 3213 or STA 3123. (Lab fees assessed)

CYP 5534 Groups as Agents of Change (3). Theory and practice in utilizing groups as agents of change or development in communities and organizations. Didactic presentation and structured exercises focus on relevant issues. Students design and implement problem-focused interventions, using class as client system.

CYP 5954 Community Psychology Field Experiences II (5). Same orientation and description as Field Experience I. Students in this course will be able to pursue their work with community institutions in more depth. Prerequisite: Students enrolled in this course must have completed Community Psychology Field Experiences I.

DEP 2000 Human Growth and Development: Introductory Developmental Psychology (3). An introductory study of the development of personality, intelligence, and motivation, from childhood to adulthood. Emphasis is on development of cognitive systems through social learning. The full life span of human growth and development will be considered.

DEP 2001 Psychology of Infancy and Childhood (3). An introduction to human development focusing on infancy and childhood. Particular attention will be devoted to intellectual, personality, and social development. Consideration will be given to both theoretical and empirical perspectives.

DEP 3115 Development in Infancy: The Basis of Human Knowledge (3). Provides a comprehensive review of current methods, theories, and findings in cognitive and perceptual development in the first year of life. Special emphasis on the bases of knowledge; object and event perception, memory, and imitation.

DEP 3305 Psychology of Adolescence (3). An examination of psychological, sociological and biological factors contributing to the changes from childhood to adolescence and from adolescence to young adulthood.

DEP 3404 Psychology of Adulthood (3). The transition from youth to middle age is studied. Focus is on changing roles in family, work, and societal settings, as these factors influence personality and other aspects of psychological function.

DEP 4014 Psychology of Parenting & Parenthood (3). An intensive examination of the reciprocal influences of parents on the development of their children and of children on the adult development of their mothers and fathers.

DEP 4032 Life-Span Cognitive Development (3). Course covers all facets of cognitive growth, change, and decline from infancy through adulthood, and old age. Prerequisites: DEP 2000, DEP 2001, DEP 4164, or DEP 4464.

DEP 4044 Psychology of Moral Development (3). A review of psychological theories and research concerning the development of moral attitudes and behavior.

DEP 4046 Psychology of Adoption (3). An advanced undergraduate seminar involving intensive reading and discussion of the research literature on adoptive families, adoptive parenting, and adoptee outcome. Prerequisite: Senior standing.

DEP 4116 Current Issues in Cognitive and Perceptual Development in Infancy (3). An advanced undergraduate seminar that provides an in-depth analysis of current issues, methods, research, and theory of cognitive, perceptional, and social development during the first year of life. May be repeated. Prerequisites: One developmental psychology course, statistics (STA 3123), and research methods (PSY 3213).

DEP 4164 Children's Learning (3). Learning in infancy and childhood, with particular emphasis on simple conditioning, discrimination shifts, mediation, transposition, observational, and concept learning. Prerequisite: Students enrolling in this course should have completed successfully at least one prior course in developmental psychology.

DEP 4182 Socio-emotional Development (3). A survey of facts and theories of human social emotional development and social learning in the early years of life. Prerequisites: DEP 2000 or DEP 2001.

DEP 4321 Development of Sexual Identity: A Life Span Approach (3). Reviews developmental and clinical theory and research on sexual identity across the life span, emphasizing the influence of personal change, close relationships, and community factors. Prerequisite: PSY 2020.

DEP 4324 Psychology of Identity Development (3). An introduction to psychological theory, research, and application in the area of identity development.

DEP 4407 Current Issues in Aging (3). A focus on current issues having both theoretical and applied relevance to the psychology of older adulthood. Students are required to make several field trips outside of class during the semester.

DEP 4464 Psychology of Aging (3). An examination of the factors that contribute to the psychological profile characterizing old age. Biological and sociological

components are considered, and their impact on perceptual, cognitive, and personality processes is analyzed.

DEP 4704 Developmental Psychology: Lecture (2) DEP 4704L Developmental Psychology Laboratory (3). Lecture/Laboratory observation exercises illustrative of the concepts and research techniques used in developmental psychology. Particular emphasis is given to cognitive and social-cognitive development. This course is for seniors who have completed PSY 3213, one developmental psychology course, and STA 3123. (Lab fees assessed)

DEP 4720 Psychosocial Developmental Interventions in Field Settings (2). An advanced senior laboratory in the implementation of psychosocial developmental school based interventions in field settings. The focus is on interventions that target promoting positive youth development in at-risk youth. Prerequisite: PSY 4941, Ind. Field Exp. Corequisite: Needs to be taken simultaneously with 3 cr. lab course.

DEP 4720L Psychosocial Developmental Interventions in Field Settings Lab (3). An advanced senior laboratory in the implementation of psychosocial developmental school based interventions in field settings. The focus is on interventions that target promoting positive youth development in at-risk youth. Prerequisite: PSY 4941, Ind. Field Exp. Corequisite: Needs to be taken simultaneously with 2 cr. lecture course.

DEP 4937 Integrating Research and Theory in Developmental Science (3). An advanced undergraduate seminar that integrates research in the lab with readings and discussion of current issues, theory, and methods in developmental science. May be repeated. Prerequisites: One developmental psychology course, one statistics (STA 3123) course. Permission of instructor. Corequisites: PSY 4916 or PSY 4914.

DEP 5056 Issues in Life-Span Developmental Psychology: Infancy through Old Age (3). A survey in depth of theories, issues, methods, and data in life-span developmental psychology through the entire age range. Prerequisites: DEP 2001 or DEP 4464, or their equivalents, are recommended.

DEP 5058 Biological Basis of Behavior Development (3). Introduction to theory and research underlying behavioral development. Covers such pre-and post-natal determinants as evolution, genetics, neuroendocrines, as well as social development, behavioral ecology, and sociobiology. Prerequisites: Graduate standing or permission of the instructor. Corequisite: Proseminar courses.

DEP 5068 Applied Life Span Developmental Psychology (3). This course is designed to acquaint the student with various applications in life-span developmental psychology. An overview of general issues and areas of application is offered, and specific applications are considered. Prerequisites: Graduate standing or permission of the instructor.

DEP 5099 Proseminar in Infancy, Childhood, and Adolescence (3). Provides a comprehensive review of issues in perceptual, cognitive, social, emotional, and personality development from infancy through adolescence. Prerequisites: Graduate standing or permission of the instructor. Corequisite: Proseminars.

DEP 5118 Current Issues in Cognitive and Perceptual Development in Infancy (3). Provides an in-depth analysis of current issues, methods, research and theory of cognitive and perceptual development during the first year of life. Special emphasis on object and event perception, memory, and imitation. Prerequisites: Two courses in developmental psychology - any level recommended.

DEP 5185 Emotional Learning & Its Reversal (3). Theoretical analyses and methodological issues in the study of emotional learning. Prerequisites: Graduate standing or permission of the instructor.

DEP 5315 Proseminar in Parent-Child Relations (3). Provides an overview of key issues in parent-child relations including culture, socialization/genetics, fatherhood, timing, adoption, work, effects of children on parents, and parent training. Prerequisites: Graduate standing or permission of the instructor.

DEP 5344 Psychology of Moral Development (3) An introduction to the literature on moral development. Review and discussion of recent developments in this area. Prerequisites: Graduate standing or permission of the instructor.

DEP 5405 Proseminar in Psychology of Adulthood and Aging (3). A comprehensive review of topics in adulthood and aging including: biological changes, social processes, work, family, cognition, memory, personality, and psychopathology. Prerequisites: Graduate standing or permission of the instructor.

DEP 5608 Theoretical Perspectives in Developmental Psychology (3). The focus of this course is on the major paradigms, models, and theories that have been influential in developmental psychology, both historically and contemporaneously. Meta-theoretical issues, paradigmatic influences, and specific theories are considered. Prerequisites: Graduate standing or permission of the instructor.

DEP 5725 Research Seminar in Psychosocial Development (1). This course is designed to develop research skills and competencies in the area of psychosocial development. The emphasis of the course is on involvement in original research. Prerequisite: Permission of the instructor. Corequisites: Senior undergraduate or graduate standing.

DEP 5796 Methods of Developmental Research (3). Survey of issues and methods at all stages of life-span developmental research including theory, methods, design, and data reduction. Prerequisites: Graduate standing or permission of the instructor. Corequisite: proseminars.

DEP 5936 Theory and Research Experience in Developmental Science (3). An advanced seminar that integrates research in the lab with readings and discussion of current issues, theory, and methods in developmental science. May be repeated. Prerequisites: Graduate standing and permission of instructor. Corequisites: Independent research in a developmental lab (PSY 5918 or PSY 6971).

EAB 3002 Introduction to the Experimental Analysis of Behavior (3). An introduction to and survey of the principles, methods, theories, and applications of the experimental analysis of behavior. Prerequisites: PSY 2020 or PSY 2012.

EAB 3765 The Application of Behavior Analysis to Child Behavior Problems (3). The applications of the theories and methods of behavior analysis to various childhood behavior disorders including anxiety and phobia, attention deficit disorders, autism and obesity. Prerequisite: EAB 3002.

EAB 4034 Advanced Behavior Analysis (2). EAB 4034L Advanced Behavior Analysis Lab (3). Strategies and tactics in the scientific approach to behavioral research, both basic and applied. Both lecture and laboratory sessions are involved. Prerequisites: EAB 3002 or equivalent. Corequisite: EAB 4034L.

EAB 4794 Principles and Theories of Behavior Modification (3). Studies different approaches to the modification of problem behavior, through the application of learning principles and theories. Prerequisite: EAB 3002.

EAB 4798 Single Case Research Methods (3). Intensive study of designs, strategies, and methods of single-case behavioral research. Prerequisite: EAB 3002.

EAB 5098 Proseminar in the Experimental Analysis of Behavior (3). An advanced survey of the principles of respondent and operant conditioning and the bases of action in both social and non-social settings. Prerequisites: EAB 3002, EAB, 4034, or equivalents.

EAB 5655 Advanced Methods of Behavior Change (3). An intensive study of selected methods of modifying human behavior, emphasizing the applications of the principles of respondent and operant conditioning, as well as those derived from modern social learning theories. Practice and role playing opportunities are provided in behavior therapy, relaxation therapy, behavior modification, biofeedback or similar behavioral approaches. Prerequisites: EAB 4794, CLP 4374, CYP 4144; enrollment in an authorized program; equivalent background; or permission of the instructor.

EAB 5797 Single-Case Research Methods (3). Intensive study of designs, strategies, and methods of single-case behavioral research. Prerequisites: Graduate standing or permission of the instructor.

EXP 3304 Motivation and Emotion (3). Introduces several perspectives from learning theory, perception, and personality theory to explore ways in which people move through their physical and social environment.

EXP 3523 Memory and Memory Improvement (3). This introduction to human memory considers the topics from a number of points of view. The following issues are addressed: the nature of memory and its phenomena; the capabilities and limitations of an ordinary and an extraordinary memory; and the skills that can aid an ordinary memory.

EXP 4005 Advanced Experimental Psychology (2) EXP 4005L Advanced Experimental Psychology Lab (3). Lecture and laboratory course investigating experimental research in the fundamental processes of human behavior. Includes perceptual, cognitive, and linguistic processes. Prerequisites: PSY 3213 and STA 3123.(Lab fees assessed)

EXP 4204 Sensation and Perception (3). Basic concepts in sensation and perception are explored, with an emphasis on models of peripheral and central neural processing. Topics such as receptor function, brightness and color vision, movement and object perception, perceptual memory and pattern recognition are considered. Psychophysical techniques, such as subjective magnitude estimation and signal detection theory, are covered. (Lab fees assessed)

EXP 4214C Human Perception: Lecture (2) and Laboratory (3). Lectures concern the methods researchers use to learn about the phenomena of sensation and perception. Laboratory exercises allow students to apply these methods and to experience the perceptual phenomena under investigation. Prerequisites: PSY 3213 and STA 3123.

EXP 4404C Human Learning and Remembering: Lecture (2) and Laboratory (3) (5). Lectures on the research and theoretical contributions to the understanding of human learning and remembering; and laboratory exercises illustrative of the concepts and techniques used in conducting experimental studies of human learning and remembering. Prerequisites: PSY 3213 and STA 3123. (Lab fees assessed)

EXP 4604 Cognitive Processes (3). Investigation of the mental processing underlying experiences and behavior. Topics include: games, puzzles, and problems; intuitive and creative thought; conceptualization, reasoning and clinical diagnosis; choices and decisions; conceptions of time and space; and thought in abnormal or altered states of consciousness.

EXP 4934 Current Experimental Theories (3). The stress in this course is on current specific theories determining the nature and direction of the research and interest in several important areas, such as psychophysics, learning and remembering, developmental patterns and motivation, personality, etc. Topics to be covered will be announced at the beginning of the academic year. May be taken twice for credit toward the major.

EXP 5099 Proseminar in Experimental Psychology (3). Provides a comprehensive review of current research and theory in areas such as learning, memory, cognition, sensation, and perception. Prerequisites: Graduate standing or permission of the instructor.

EXP 5406 Theories of Learning (3). The major theoretical systems of learning are covered, with the intent of determining how well each accounts for the phenomena of learning. Emphasis is placed on exploring the controversial issues raised by extant theories, and the experimental resolution of these theoretical controversies. The impact of theory on current thinking about learning is considered.

EXP 5508 Applied Cognitive Psychology (3). Covers the basic theories of cognitive psychology perception, attention, memory, learning, knowledge, with emphasis on application to real-world problems. Prerequisite: Graduate Standing.

EXP 5527 Memory and Consciousness (3). The relation of memory and consciousness is explored with emphasis on issues of current research and theoretical work from both a cognitive and a neuropsychological perspective. Prerequisite: Graduate standing.

EXP 5667 Cognitive Neuroscience (3). Investigation of the relation between mind and brain. Discuss literature from both patient studies and from the growing research in neuroimaging. Prerequisite: Graduate standing.

INP 2002 Introductory Industrial/Organizational Psychology (3). Introduction to the study of behavior in the work environment. Illustrative topics included formal and informal organization, work motivation, satisfaction and performance, leadership, job analysis, selection and performance evaluation, training, and development.

INP 4055 Industrial/Organizational Psychology Lecture (2) INP 4055L Industrial/Organizational Psychology Laboratory (3). Students gain experience with the use of psychometric instruments in the areas of job analysis, personnel selection, performance appraisal, job satisfaction, criteria analysis, and management training and development. Prerequisites: PSY 3213; STA 3123; and INP 2002 or INP 4203, or Personnel Management.(Lab fees assessed)

INP 4203 Personnel Psychology (3). Techniques and procedures applicable to the selection, placement, utilization, and evaluation of personnel in organizations are considered. The emphasis will be on empirical procedures, rather than the management function in the personnel area. Topics such as quantitative methods and models for selection, criteria analysis, performance appraisal, management training, and job satisfaction are discussed. Prior course in statistics strongly recommended.

INP 4313 Organizational Psychology (3). Focuses on the "organizational" topics associated with the field of industrial/organizational psychology. Includes, leadership, team effectiveness, work and family issues.

INP 5095 Proseminar in Industrial Psychology (3). Provides coverage of industrial and personnel psychology topics such as job analysis, personnel recruitment and selection, legal aspects of employment, performance appraisal, and training design and evaluation. Prerequisites: Acceptance to Master's or Ph.D. program in Psychology.

INP 6611 Organizational Stress (3). This seminar examines conceptualizations, causes, consequences, and correlates, of stress, strain, and coping in the workshop. Prerequisite: Graduate standing.

LIN 4705 Psychology of Language and Cognition (3). Investigation of the psychological processes underlying language. Attention will be devoted to speech perception, comprehension, written langauge, and the biological basis of language abilities. Prerequisite: PSY 2020.

LIN 4710 Language Acquisition (3). An examination of the way children acquire language, based on experimental findings from contemporary linguistics, psycholinguistics, and behavioral theory.

LIN 5701 Psychology of Language (3). An overview of the psychology of language and the psychological 'reality' of linguistic structure. Behavioristic vs. cognitive views of psycholinguistics are examined. Consideration is given to the biological bases of language and thought, language acquisition, and language pathology. Prerequisite: Permission of instructor.

PCO 5251 Couples and Family Systems (3). An overview of theory, research, and treatment issues related to couples and family systems. The course covers relevant techniques, training, and professional issues. Prerequisite: Graduate standing.

PCO 5311 Theory, Treatment, and Research of Addictive Behavior (3). An overview of theory, treatment, and research findings pertaining to the process and development of addictive behavior. This course covers treatment issues related to substance abuse disorders. Prerequisite: Graduate standing.

PPE 3003 Theories of Personality (3). An examination of various theories of personality. Consideration is given to traditional and contemporary approaches to personality development.

PPE 3502 Psychology of Consciousness (3). Normal and altered states of human consciousness are analyzed from the perceptual and neuro-psychological viewpoint. Broad topic areas include physiologically determined levels of arousal, from deep sleep to intense excitement; selective attention; perceptual plasticity; illusions; sensory deprivation; biofeedback; psychosomatic disease; hypnotism and suggestibility; as well as a critical treatment of the phenomena of parapsychology.

PPE 3670 Psychology of Myth (3). Mythology is studied from various psychological viewpoints. The process of Myth. Creation and the role of ritual in psychological enhancement are emphasized. Course focuses on classical mythology.

PPE 4104 Humanistic Psychology (3). Studies the methodology, research, and findings of the humanistic orientation in psychology. Topics such as counseling, encounter groups, higher consciousness, biofeedback, intentional communities, education, mysticism, and religion are examined from the humanistic viewpoint. Prerequisite: Prior completion of a course in Theories of Personality is recommended.

PPE 4325C Differential Psychology: Lecture (2) and Laboratory (3). Lectures and laboratory field experiences in the principles and methods underlying the administration, construction, and evaluation of psychological tests. Practice in the administration and interpretation of selected psychological tests. Prerequisites: STA 3123 or an equivalent introductory course in statistics, and PSY 3213.(Lab fees assessed)

PPE 4514 Psychology of Dreams and Dreaming (3). An in-depth examination of the most important psychological theories of dream function and of the use of dreams in different therapeutic approaches. The current research on the physiology and psychology of sleep is also evaluated. Prerequisites: Theories of Personality or its equivalent.

PPE 4930 Topics in Personality (VAR). Special topics will be announced in advance.

PSB 4002 Introductory Bio-Psychology (3). A study of the more important psychobiologic correlates of behavior in basic psychological phenomena.

PSB 4240 Neuropsychology (3). The relation of brain to cognition and behavior. An introduction to the study of the effects of brain damage on psychological processes.

PSB 4250 Animal Cognition (3). Issues and concepts relating to the evaluation of cognitive abilities in animals. Examines theoretical, methodological and philosophical issues and problems in the study of animal cognition.

PSY 2020 Introductory Psychology (3). Psychological principles underlying the basic processes of sensation, perception, cognition, learning, memory, life-span developmental, social behavior, personality, abnormal behavior, and psychotherapy.

PSY 3213 Research Methods in Psychology (3). Basic methods in contemporary psychology. Emphasis on the role of methodology and experimentation in subfields of psychology. Students evaluate different designs and conduct original research projects. Prerequisite: STA 3123. (Lab fees assessed)

PSY 3930 Psychology of Humor (3). A study of the development of sense of humor in comedians and audiences; its expression in the production and appreciation of comedy, etc.; its psycho-physiologicsocial correlates; its effect in maintaining well-being and preventing illness; and its role in human relations.

PSY 4024 Seminar in Research and Careers in Psychology (3). Prepares students to enter careers in Scientific Psychology; towards preparation for graduate school; to assist in participation in research; and to know about options in Psychology. Prerequisite: PSY 2020. Corequisites: PSY 4914 or PSY 4916 or permission of instructor.

PSY 4302 Psychological Testing (3). An introduction to the rationale underlying the use of psychological tests. Topics include basic test terminology, test administration, interpreting standard scores, reliability, validity, tests of intelligence, interest inventories, personality tests, the ethics of testing, and the fairness of tests for different segments of the population. Prerequisites: STA 3123 or equivalent.

PSY 4801 Metatheory in Psychology (3). Issues related to the meta-theoretical foundation of psychology, and history and systems of psychology.

PSY 4900 Independent Readings in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their study. Offered for Pass/Fail only. Prerequisite: Permission of instructor.

PSY 4914 Honors Research Project (VAR). Limited to qualified seniors seeking honors in psychology. Students must submit a research plan and have a research advisor's approval of the research project prior to enrollment in the course. A written report of the research in the A.P.A. publication style must be submitted for evaluation before credit will be awarded. Offered for Pass/Fail only. Prerequisite: Permission of instructor.

PSY 4916 Independent Research in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a written proposal for research. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their research. Prerequisite: Permission of instructor.

PSY 4930 Special Topics in Psychology (3). Special topics will be announced in advance. Prerequisite: Permission of instructor.

PSY 4931 Senior Seminar in Psychology (1). An advanced seminar for seniors. Analysis of major contemporary trends in psychological theory and research. Prerequisite: Permission of instructor.

PSY 4932 Psychology of Human Communication (2). PSY 4932L Psychology of Human Communication Lab (3). This course covers psychological theory, research and application in the area of human communication. Prerequisites: STA 3123, PSY 3213.(Lab fees assessed)

PSY 4941 Independent Field Experiences in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their experiences. Prerequisite: Permission of instructor.

PSY 5206C Fundamentals of Design of Experiments (3). CRD and RCB designs. Latin square designs. Factorial, nested and nested-factorial experiments. Fixed, random and mixed models. Split-plot designs. Covariance analysis. Prerequisites: STA 3122 and 3123, or their equivalents.

PSY 5216 Proseminar: History and Systems of Psychology (3). An examination of the historical foundations of modern psychology and survey of current systems and schools of psychology. Prerequisites: Graduate standing or permission of the instructor.

PSY 5246C Multivariate Analysis in Applied Psychological Research (3). Covers basic techniques of multivariate analysis, emphasizing the rationale and applications to psychological research. Includes multiple regression, Hotelling's T^2, MANOVA, principal component analysis, and factor analysis. Prerequisites: STA 3123 or equivalent; linear algebra recommended.

PSY 5908 Directed Individual Study (VAR). Under the supervision of an instructor in the graduate degree program, the graduate student delves individually into a topic of mutual interest which requires intensive and profound analysis and which is not available in a formal offering. May be repeated once. Prerequisite: Permission of the instructor.

PSY 5917 Psychology Research Proseminar (3). Specialized research and presentation to faculty members in his or her major research area. Seminar style. This course is intended as a core course for the masters program in psychology. Prerequisite: Full graduate admission.

PSY 5918 Supervised Research (VAR). Research apprenticeship under the direction of a research professor or a thesis advisor. Prerequisite: Full graduate admission.

PSY 5930 Qualitative Research Methods in Development Psychology (3). Review recent developments in qualitative research methods. The focus will be on the application of these methods to research on human development. The interpretation of qualitative and quantitative methods will be stressed.

PSY 5939 Special Topics in Psychology (3). Special topics will be announced in advance.

SOP 2772 Psychology of Sexual Behavior (3). An examination of the nature, development, decline, and disorders of sexual behaviors, primarily from the perspectives of normal adjustment and interpersonal relations. Discussion also addresses love, intimacy, and similar emotionally charged socio-psychological topics. Modern and popular treatment approaches - including the 'new sex therapies' are critically evaluated.

SOP 3004 Introductory Social Psychology (3). Introduction to the study of the relationship of the individual to social systems, including topics such as social behavior, attitude development and change, social conflict, group processes, mass phenomena, and communication.

SOP 3015 Social and Personality Development (3). This course provides a survey of social and personality development throughout the life cycle. Emphasis will be placed on the interaction between psychological and environmental variables in life-span development changes.

SOP 3742 Psychology of Women (3). An examination of women from various perspectives, such as biological, anthropological, mythological, religious, historical, legal, sociological, and psychoanalytical points of view. Discussions of ways in which these various perspectives influence the psychological development of contemporary women.

SOP 3932 Psychology of Drugs and Drug Abuse (3). This course will cover some basic information about the nature and effects of drugs abused, the social and personal dynamics involved in the phenomena of drug abuse and the various rehabilitation programs currently being employed to combat drug abuse.

SOP 4050 Social Psychology in Latin America (3). Upper division seminar on Social Psychology in Latin America. The course will provide the student with the opportunity to survey the literature and research in social psychology from different countries in Latin America and to compare that material with on-going research and literature in the United States. Prerequisites: SOP 3004 and reading knowledge of Spanish.

SOP 4214C Experimental Social Psychology: Lecture (2) and Laboratory (3). The primary purpose of this course is to have students conduct actual social psychological experiments. Lecture material will be secondary to (and in the interest of) allowing students to execute representative experiments in areas such as attitude measurement and change, group structure, and communication, etc. Prerequisites: PSY 3213 and STA 3123. (Lab fees assessed)

SOP 4414 Attitudes and Social Behavior (3). A review of classic and contemporary social psychological research on attitudes and persuasion. Emphasis will be placed on using persuasion processes to ameliorate social problems. Prerequisite: PSY 2020.

SOP 4522 Social Motivation (3). Focuses upon those sources of human motivation that are a consequence of man's social-interpersonal environment and his striving to obtain valued goals. Topics discussed include test-taking anxiety, alienation and affiliation motivation, internal vs. external orientation, achievement motivation, etc. The measurement of social motives and their roots and consequences for behavior are discussed.

SOP 4525 Small Group Behavior (3). Introduction to the study of the structure and function of groups, emphasizing the behavior of individuals as affected by the group. The course focuses on experimental evidence concerning such topics as social facilitation, group decision making, phases in group development, physical factors in group behavior, etc.; rather than upon student experience in sensitivity or encounter training.

SOP 4645 Consumer Psychology (3). This course addresses the psychological components contributing to satisfaction and dissatisfaction in buying and selling transactions. The consequences of such transactions, as they affect the environment in which we live as well as society in general, are examined. The interface between business, labor, government, and the consumer as all four groups are involved in consumer affairs is analyzed objectively.

SOP 4649 Experimental Consumer Psychology: Lecture (2) and Laboratory (3). Using the interactional workshop and objective observational methods, students will be required to conduct original research projects related to solving consumer affairs problems. Laboratory requirements include both on-and off-campus work. The former emphasizes techniques and evaluation. The latter is necessary for the gathering of data. Prerequisites: PSY 3213 and STA 3123. (Lab fees assessed)

SOP 4712 Environmental Psychology (3). An introduction to the study of human-environment transactions, with an emphasis on applications of physiological, psychological, and social theories.

SOP 4714C Environment and Behavior: Lecture (2) and Laboratory (3). Students gain experience with laboratory and field techniques used in the study of the reciprocal relationship between the physical environment and human behavior. Prerequisites: PSY 3213 or permission of the instructor. (Lab fees assessed)

SOP 4774 Female Sexuality (3). Psychological and behavioral aspects of women's sexuality will be explored, including: anatomy, sexual functioning, pregnancy/childbirth. Sexual orientation, sexual variations, sexual assault/abuse, and relationships. Prerequisites: PSY 2020 (Intro to Psychology) or WST 3015 (Intro to Women's Studies).

SOP 4842 Legal Psychology (3). Particular emphasis will be given to interpersonal courtroom processes. Topics considered include scientific jury selection, proximics, persuasive argumentation, witness demeanor, eyewitness testimony, and similar influences upon juror decision making.

SOP 5058 Proseminar in Social Psychology (3). An in-depth examination of the role of social psychology in the social sciences and the major substantive problems as they relate to contemporary societal issues. Minimum

prerequisite: An introductory course in social psychology or its equivalent.

SOP 5081 Psychological Influences On Health and Illness (3). Provides a comprehensive review of theory, research, and interventions in the field of health psychology. Prerequisites: Graduate standing or permission of the instructor.

SOP 5316 Theories and Methods of Cross-Cultural Research (3). An intensive analysis of contemporary theories and methods of cross-cultural research in psychology including topics such as: culture as a research treatment, differential incidence of personality traits, the use of ethnographies, 'etic' vs. 'emic' distinction. Prerequisites: Graduate standing or permission of the instructor.

SOP 5616 Social Psychology of Organizations (3). The application of concepts and theories from social psychology and sociology to the organizational setting. Emphasis would be on role theory, value formation and the operation of norms, including their development and enforcement. Formal and informal organization structure, power and authority concepts, and leadership theories will be covered. Communication processes and networks and their effects on task accomplishment and satisfaction will be included.

Religious Studies

Christine Gudorf, *Professor and Chairperson*
Daniel Alvarez, *Visiting Instructor*
Ana Maria Bidegain, *Associate Professor*
Steven Heine, *Professor*
James Huchingson, *Professor*
Nathan Katz, *Professor*
Erik Larson, *Associate Professor and Undergraduate Program Director*
Aisha Musa, *Assistant Professor*
Lesley Northup, *Associate Professor*
Oren B. Stier, *Associate Professor and Graduate Program Director*
Albert Wuaku, *Assistant Professor*
Zion Zohar, *Assistant Professor*

Affiliated Faculty
Thomas A. Breslin
Bongkil Chung
David L. Lee
Kathryn McKinley
Mohiaddin Messbahi
Thomas Norris
Meri-Jane Rochelson
Dennis Wiedman

Bachelor of Arts in Religious Studies

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisites

No specific courses required; all students are encouraged to complete the Associate in Arts degree.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Recommended Courses: Religion, Philosophy, History and Anthropology.

Upper Division Program: (60)

Required Areas

The Religious Studies major serves as a basis for students who wish to pursue the study of religion or theology as a career, for students preparing for a career in counseling, education, business, law or medicine, or for students who wish to undertake a dual major in a related field of study. The major is designed to allow students to focus either on comparative topics in a critical approach to understanding religious phenomena and their relation to society in a broader cultural context or on the theory and practice of a specific religious tradition in its historical setting.

Required Courses

The major requires 33 credits distributed in the following sequence:

1. **Foundation Courses** (6 credits), selected from a group of courses that provide students with an introduction to multicultural approaches and interdisciplinary methodologies in the study of religion and thus a *foundation* for more specialized studies:

   REL 2011 Religion: Analysis and Interpretation
   REL 3027 Meditation and Mystical Traditions
   REL 3091 Joseph Campbell & the Power of Myth
   REL 3112 Religion and Literature
   REL 3148 Violence and the Sacred
   REL 3170 Ethics in World Religion
   REL 3250 Jesus and the Early Christians
   REL 3308 Studies in World Religions
   REL 3492 Earth Ethics

2. **Focus Courses** (24 credits), including 18 or more credits in Religious Studies and up to 6 credits in Related Areas, in *focus* or *specialized* courses selected at the 3000 or above level. Related Areas are selected from courses in Art History, English, History, Humanities, International Relations, Philosophy, Psychology, or Sociology/Anthropology, in order to further enhance the interdisciplinary nature of Religious Studies. Through these courses the student develops an area of concentration in one of the following topics:

   a) Comparative Studies of Religion (comparative studies of myth and ritual, textual studies, or social scientific studies), **OR**

   b) Studies of a Specific Religious Tradition (in-depth studies of an eastern, western, indigenous, or syncretic tradition), **OR**

   c) Religion, Culture and Values (analysis of religion in relation to women's studies, science, the environment, society, or ethics).

3. **Capstone Course** (3 credits), a senior or *capstone* seminar in *advanced* studies of religion:

   REL 4030 Methods in the Study of Religion,
   OR
   REL 4205 Current Methods in Studies of Sacred Texts

General Electives 27

The College of Arts and Sciences requires for the bachelor's degree that a student take at least nine hours outside the major discipline, of which six hours must be taken outside the major department.

Remarks: A complete description of the Religious Studies Program is contained in a brochure available at the Department of Religious Studies. Students should refer to the brochure for specific requirements of the major program. Students select their required courses in Religious Studies with the approval of the Undergradute Program Director.

Students are also encouraged to consider a dual major i.e., simultaneously to meet the requirements of two academic majors.

The Department serves the community and professional groups by offering courses off campus. For further information concerning these courses consult the department.

Minor in Religious Studies

A student majoring in another academic discipline can earn an academic minor in Religious Studies by taking at least four REL courses (12 upper division semester hours). Students are encouraged to take REL 3308, Studies in World Religions, as one of these courses.

Honors Track in Religious Studies (B.A.)

Requirements:

a. To earn the B.A. with Honors in Religious Studies, a student must maintain a 3.5 GPA in religious studies courses.
b. Candidates for the B.A. with Honors in Religious Studies will complete the same requirements as for the B.A. major with one exception: among the "Focus Courses" 21 semester hours of course work will be taken plus 3 semester hours of "Religious Studies Research," during which a thesis or honors paper will be proposed, researched, written and defended orally.
c. In the semester prior to graduation, the student will enroll in "Religious Studies Research" (REL 4912), in which he/she will expand a term paper into an honors paper/thesis, or will begin a thesis anew, under the direction of an appropriate member of the Religious Studies faculty.
d. When the thesis is approved by the faculty member, the coordinator of REL 4912 will organize and schedule a defense of the honors paper/thesis, at which the student will present his/her research and will respond to questions from faculty and students. This requirement will be deemed to have been met upon a majority positive vote of faculty.
e. The honors paper/baccalaureate thesis normally would be approximately 25-35 pages, must be presented according to FIU regulations (available in the department office), and will be deposited in the FIU Library. The honors paper/thesis must demonstrate that the student has mastered skills in defining a topic, research and expository writing, as well as oral skills required for the presentation and defense of the honors paper/thesis.

Accelerated Master of Arts in Religious Studies

Admission Requirements

- Current enrollment in the Bachelor's Degree program in Religious Studies, or any humanities major that allows at least 12 hours of electives.
- Completed at least 60 hours of coursework.
- Current GPA must be 3.4 or higher.
- Two letters of recommendation.
- Approval of the Graduate Committee.
- Submission of acceptable writing sample, complete with bibliography, to Turnitin.com.

Graduation Requirements

Completed BA at FIU including,

REL 4931	Religious Seminar
REL 6935	Seminar in Sacred Texts
REL 6013	Modern Analysis of Religion

Six hours of graduate credit in Religious Studies (for majors, graduate level enrollment in six hours of Focus Courses) must also be taken as Graduate courses.

Required:

- A four course track, either in one religious tradition, or one theme across religious traditions, approved by the Graduate Director.
- The two graduate seminars taken in the senior year of the BA as well as the Focus courses taken at the Graduate level (limit 12 hours double-counted).
- Six credits of electives selected from the Religious Studies Graduate Course Offerings.
- Six hours of thesis, or six additional hours from the Religious Studies Graduate Course Offerings.
- All courses must be completed with a grade of "B" or above.

Course Descriptions

Definition of Prefixes

GRE-Ancient Greek; REL-Religion; HBR-Biblical Hebrew; ASN-Asian Studies.

GRE 3041 New Testament Greek II (3). Continuation of New Testament Greek I. Prerequisites: New Testament Greek I or permission of the instructor.

GRE 3050 New Testament Greek I (3). Introduces the Greek language of the New Testament, and other works of the ancient period to enhance the understanding of translated texts. A portion of the Gospel of John is studied.

HBR 3100 Biblical Hebrew I (3). Introduces the language of the Hebrew Scriptures, portions of which are read in class.

HBR 3101 Biblical Hebrew II (3). A continuation of Biblical Hebrew I. Prerequisite: Biblical Hebrew I.

REL 1200 Introduction to Christian Scripture (3). Examines the origins and themes of the Christian Bible using literary, historical, and archeological approaches. Explores inter-religious dialogue between Christianity and Judaism on shared scripture.

REL 2011 Religion: Analysis and Interpretation (3) Introduces methods of critical reflection on religion and some of their applications to fundamental topics such as knowledge, value, the sacred, the individual and human society. Written work meets the state composition requirement (6000 words).

REL 2624 From Bible to Talmud (3). An introduction to early Judaism from the end of the biblical period to the completion of Talmud that surveys the history and issues shaping this crucial period of development.

REL 2936, 4936 Special Topics (1-6). In-depth study of topics of special interest in religion.

REL 3021 Magic and Ecstasy in New Religions (3). Examines the role of magic, ecstatic religious experience, and the supernatural in contemporary religion.

REL 3022 Ritual in Religion and Culture (3). Examines ritual and its roots, functions, analysis, and meaning, both in religious contexts and as it is assimilated and adapted in the wider culture.

REL 3026 Folk Religions in Asia and the World (3). Movements in folk or popular religions in relation to the official dimension of the major traditions, including the role of ghosts and spirits, visions and dreams, and healing and prophecy.

REL 3027 Meditation and the Mystical Traditions (3). The history, philosophy, and cultural impact of the role of meditation in various mystical traditions, including movements such as Kabbalah, Neo-Platonism, Sufism, Yoga, Tantra, Taoism, and Zen Buddhism.

REL 3028 Sacred Places, Sacred Travels (3). The role of worship associated with sacred and ritual travels, with emphasis on Asia and Latin America and the syncretism between indigenous rites and the major religious traditions.

REL 3029 Christian Mysticism (3). Historical and theological analysis of the sources, tradition and contemporary manifestations of Christian Mysticism.

REL 3091 Joseph Campbell and the Power of Myth (3). Examines the nature of myth, particularly from the perspective of mythologist Joseph Campbell, and focuses on his contribution to the study of myth.

REL 3100 Introduction to Religion and Culture (3). This course explores both the ways religion uses culture to express its basic concerns and the ways that culture and lifestyle reflect religious perspectives. Attention will be given to traditional and popular expressions of American culture.

REL 3110 Religion and Television (3). Examines the interaction of religion and television; television as a vehicle for religious programming, news, and values; and religion as a dynamic influence on the medium.

REL 3111 Religion in Film (3). Students examine religious themes, images, symbols and characters in various feature and short films, a specific method of critical analysis, and the religious and societal effects of contemporary films.

REL 3112 Religion and Literature (3). Literary texts engaging central religious and spiritual themes are used to explore the multicultural and transnational study of religions. Specific topics may vary from year to year.

REL 3120 Religion in America (3). Historical survey of the development and influence of religions in the U.S. with emphasis on the unique role of religion in American culture.

REL 3123 Asian Religions in the Americas (3). This course examines the arrival, diffusion, and cultural impact of Asian religions, such as Hinduism, Buddhism, and New religions, in North and South America.

REL 3127 Church and State (3). Explores the separation of church and state in the United States, reviewing its historical background and studying contemporary cases involving religious freedom.

REL 3131 Sects and Cults (3). Explores the American tendency to generate new religious movements and examines a variety of these sects and cults.

REL 3139 African-American Religious Movements (3). Analysis of the history, beliefs and practices of select key African-American religious movements, such as "storefront" churches and the Nation of Islam.

REL 3142 Sacred, Selfhood and Society (3). The interaction between traditional and contemporary religious and psychological approaches to understanding the self and realizing authentic selfhood in relation to society.

REL 3145 Women and Religion (3). Explores the involvement, portrayal, and roles of women in religion, from early goddess religions through the cult of Mary to contemporary feminist theology.

REL 3148 Violence and the Sacred (3). The role of religion in the inspiration, justification, avoidance, or constraint of various forms of overt or covert violence. Addresses relevant social issues.

REL 3160 Science and Religion (3). The methods, assumptions, goals of religion will be compared with those of the natural and human sciences. Specific issues, such as evolution, sociobiology, and the new astronomy will be considered to illustrate similarities and differences between the two approaches.

REL 3162 Religious Healers and Mediums (3). Religious studies scholarship using sociological method/theory to explore major themes in premodern, modern and postmodern religion, with special focus on religious ritual for healing and afterlife.

REL 3170 Ethics in World Religion (3). Examines the nature of ethics in its relationship to various faith orientations around the world and surveys specific ethical problems in world religions.

REL 3171 Sex and Religion (3). A survey of religious understandings of sexuality, gender and reproduction with special emphasis on contemporary issues.

REL 3172 Reproductive Ethics (3). Surveys U.S. religion on family, surrogacy, artificial insemination and in vitro fertilization, contraception, abortion, and fetal hazards in the workplace.

REL 3179 AIDS, Ethics and Religion (3). Examines ethical issues in AIDS as framed by churches, by persons with AIDS (PWA) networks, and by AIDS workers.

REL 3180 Medical and Bioethics (3). A survey of religious treatment of ethical issues in health care and medical research.

REL 3194 The Holocaust (3). Examines different aspects of the Holocaust as well as issues and events that led to and arose from the World War II Experience. Special attention is given to Jewish-Christian relations, thought and ethics before, during and after the Holocaust.

REL 3197 Topics in Race and Religion (3). Examines the role of religion in specific historical events such as the US civil rights movement, the rise/fall of S. African apartheid, or the subjugation of the Amerindians.

REL 3207 Jesus and the Dead Sea Scrolls (3). Explores the new light shed on the life of Jesus and the early Christian movement by the discovery of the Dead Sea Scrolls.

REL 3209 The Dead Sea Scrolls (3). Surveys scholarship on the Dead Sea Scrolls, including their significance for the study of the Bible and the history of Judaism and Christianity.

REL 3220 Moses, Priests and Prophets (3). In-depth studies of selected portions of the Hebrew Scriptures, paying close attention to the history of ancient Israel and situating the texts within the cultural milieu of the ancient Near East.

REL 3250 Jesus and the Early Christians (3). Examines the life of Jesus and the New Testament documents; what we know about Jesus, how we know it, and how and why early Christianity spread so rapidly.

REL 3270 Biblical Theology (3). Explores the ideas of God, man, redemption, ethics, and the after-life, tracing each through its development from earliest Hebrew thought to the rise of post-biblical Judaism and Christianity.

REL 3280 Biblical Archaeology (3). Explores the nature, goals and methods of biblical archaeology. A survey of the most important sites and finds that have given us a new understanding of the world of the Bible.

REL 3282 Archaeology of Israel (3). Introduction to the archaeology of the land of Israel as it relates to biblical history. Visits to major excavations will be combined with special lectures on the most significant finds of each site.

REL 3308 Studies in World Religions (3). Examines the origins, teachings, and practices of selected world religions. The specific religions selected for examination may vary from semester to semester.

REL 3310 Introduction to Asian Religions (3). The great traditions which originated in India and China – Brahmanism, Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Taoism – are explored in the cultural and social contexts. Special attention is paid to how these religions contribute to the construction of social identities, as well as to the interaction between religions and their artistic expressions in painting, architecture, poetry and drama.

REL 3313 Sources of Modern Asian Society (3). Is the contemporary period a replay of ancient relio-cultural patterns, or does it pose unique challenges? Explores how classical Hinduism, Confucianism, and Buddhism affect modern India, the "Tigers", Sri Lanka and Japan.

REL 3314 Religion on the Silk Road (3). The historical meeting point of religions east and west, on the Silk Road that linked China with Central Asia, the Middle East, and Greco Roman culture.

REL 3320 Moses, Jesus, Muhammad (3). The lives of Moses, Jesus, Muhammad and the communities they founded. Each religion's teachings are explored to reveal in what ways they are similar and in what ways unique.

REL 3325 Religions of Classical Mythology (3). Examines the beliefs and practices of ancient Egyptian, Semitic, Greek, and Germanic religions, their influences on later civilization and religious thought, and the possible continuing insights offered by each.

REL 3330 Religions of India (3). The myriad religions of India, from prehistoric origins to contemporary politicized Hinduism. Schismatic movements (Buddhism, Jainism) and "Indianized" extrinsic religions (Judaism, Christianity, Islam, Zoroastrianism).

REL 3337 The Goddess in India (3). Images of the Goddess, known as Devi or Shakti, have been traced back to the third millennium BCE. Scrutiny of the evolution of Goddess worship in India is theological in character, philosophical in content, and legendary in tradition.

REL 3342 Zen and the Tea Ceremony (3). Theory, practice, aesthetics and cultural history of Chado, the tea ceremony of Zen Buddhism.

REL 3343 Buddhist Literatures (3). Selected non-canonical Buddhist genres, traditional and modern. Readings might include Tibetan tantric hagiographics or songs, Tales of Genji, Nohard Kabuki, pilgrim narrations, women's enlightenment songs, meditation manuals.

REL 3344 Tibetan Buddhism (3). Tibetan Buddhism is an amalgam of Indian Mahayana Buddhism, Tantric Buddhism, and indigenous Shamanism. It developed unique symbolism, rituals, spiritual practices and social organization.

REL 3349 Indian Buddhism (3). The origin and development of Buddhism in India and South - Southeast Asia. Context, life and teachings of the Buddha, Schools of thought and social institutions.

REL 3362 Islamic Faith and Society (3). A survey of the main facets of Islamic religion and societies from the time of Muhammad to the present.

REL 3380 Native American Religions (3). An introduction to Native American religions, including myths, rituals, shamanic practices, and beliefs. Attention will be given to contemporary issues of tribal cultures of South Florida.

REL 3383 Religions of the Caribbean (3). Developments, beliefs, rituals, and symbolic system of religious traditions of the Caribbean. Religion and society in Caribbean history.

REL 3392 Jewish Mysticism (3). An overview of the history and philosophy of Kabbalah and an exploration of selected practices and techniques of Jewish mysticism.

REL 3398 Rhythms of the Sacred (3). Explores how music has been a powerful and essential part of mystical experience in the world's religious traditions, how it becomes religion and how religion influences music.

REL 3443 Liberation Theologies (3). A survey of the major themes in and methodological distinctiveness of Latin American, African American and Feminist Liberation Theologies.

REL 3490 Behind the Da Vinci Code (3). Dan Brown's The Da Vinci Code is the starting point to examine whether there are secrets behind the history of Christianity as it is usually taught. Topics include gnosticism, knights templar, freemasons.

REL 3492 Earth Ethics (3). This course will explore resources from philosophy and religion that could contribute to a solution of the current environmental crisis. Ethical issues of the environment will especially be examined in the light of these resources.

REL 3505 Introduction to Christianity (3). Introduces the basic beliefs and practices of Christianity in their historical and modern forms, including both common and distinctive elements of Catholicism, Protestantism, and Eastern Orthodoxy.

REL 3510 Early Christianity (3). This course will survey the first development of Christian thought and practice from its beginnings as a primitive church to its establishment as a major faith in the Middle Ages. It will then consider the relevance of this early experience for modern movements of this faith.

REL 3520 Saints, Witches, and Cathedrals (3). Cathedrals and crusades through religious schisms and

wars to Third World Christianity and women priests: select survey of major trends in Christianity.

REL 3530 Protestantism (3). Surveys Protestantism from the Reformation to the present, including the formation of Protestant theology, the relationship of Protestantism to culture and contemporary developments.

REL 3532 Reformation (3). The lives and thoughts of the leaders of the Protestant Reformation will be the focus of this course. Significant attention will be given to the personal experiences and theological perspectives that directed the actions of such persons as Luther, Calvin, and Zwingli, as well as the movements they founded.

REL 3551 Mary and Jesus (3). Biblical scholarship and theological traditions regarding Jesus of Nazareth and Mary, his mother.

REL 3564 Modern Catholicism (3). Surveys Catholicism from Vatican Council II to the present, including developments in liturgy, theology, and the relationship of the Church to the world.

REL 3601 The Ethics of Judaism (3). Examines Jewish approaches to ethical issues. Takes into account both traditional and nontraditional approaches which claim, in some way, to be authentically Jewish.

REL 3607 Judaism (3). An introduction to Judaism, following a brief historical overview. Lectures and discussions will focus on the themes of Text, Time, Space, People, and Memory in classical and contemporary manifestations.

REL 3625 Introduction to Talmud (3). Through close readings (in English translation) of specific Talmudic texts, this course introduces students to the Talmud - the magnum opus of Rabbinic Judaism.

REL 3627 Kabbalah and the Bible (3). Study of the basic categories of Kabbalah as an esoteric doctrine and evaluation its unique interpretation of selected Biblical texts within the historical context of the Sephardic Jewish experience.

REL 3630 American Judaism (3). Orthodox, Conservative, Reform, and other forms of American Judaism, and the impact of the Holocaust, Zionism, and anti-Semitism on American Jewry.

REL 3671 Jews, Sex, and Gender (3). Deals with the central issues and debates surrounding gender, sex, and the body in Jewish thought and practice. Covers the wide range of texts and responses to these issues in Jewish history.

REL 3672 Religion and Society in Israel (3). Conquest, domination and exile are major themes in Israel's history. Responses to these experiences—assimilation, Zionism, and the secular state—are examined.

REL 3690 Hasidic Thought (3). Analysis of the popular Jewish mystical pietistic movement that began in 18th century Eastern Europe, revolutionizing Jewish society, culture, and thought up to the present day.

REL 3695 The Golden Age of Sephardic Jewry (3). The religious life of the Sephardic Jews as it emerged during the Golden Age of Spain in dialogue with Christians and Muslims, and as it developed throughout the Sephardic diaspora. Among the figures to be studied are Judaic philosophers, legalists and mystics, such as Maimonides, Judah Halevi, Ibn Ezra and Moses de Leon.

REL 3949 Cooperative Education in Religion (3). A student majoring in Religious Studies may spend one or two semesters fully employed in industry, government, or other appropriate institutional setting in a capacity relating to the major. Permission of Cooperative Education and major department.

REL 4030 Methods in the Study of Religion (3). This course examines a number of the most important methods used in the academic study of religion, together with representative examples of the use of these methods. Prerequisites: Religious Studies major status or permission of the instructor.

REL 4141 Latinas and Religion in the Americas (3). Review of the practices, beliefs, social and political activism, and theological and biblical reflections of Latinas in the Americas from a historical perspective to modern day.

REL 4146 Feminist Theology and Ethics (3). Surveys major Christian and Jewish feminists on revelation, sexuality and body, liturgy, religious community and other topics.

REL 4173 Technology and Human Values (3). This course will explore the sources and impact of modern technology from philosophical and religious perspectives. Topics to be discussed include the effects of technology upon the understanding of human nature, and the relationship among technology, the natural environment, and hopes for a livable human future.

REL 4193 Holocaust Memorials (3). Examines the contemporary religious, moral, and cultural impact of the Holocaust through the analysis of selected memorial forms: memoirs, theology, fiction, cinema, monuments, museums, and the arts.

REL 4205 Current Methods in Sacred Texts (3). This course introduces sacred texts and the methods and tools of their study, including translations, historical studies, hermeneutics, and the use of secondary resources. Prerequisite: Religious Studies majors status or permission of the instructor.

REL 4224 The Prophets and Israel (3). Examines the setting of the prophets in the history of Israel, their contributions to biblical religion, and their use in later religious and renewal movements.

REL 4251 Jesus and Paul (3). Examines the historical settings, teachings, significance, and later interpretations of Christianity's founder and its foremost interpreter.

REL 4311 Religious Classics of Asia (3). Classical religious texts of Asian traditions. Content may vary. Course may be repeated with change in content.

REL 4312 Jews of Asia (3). Surveys the history, culture, and literature of the Jews of Asia, with emphasis on the Cochin Jews, the Bene Israel of Bombay and environs, the 'Baghdadis' of Indian port cities, and the Chinese Jews of Kaifeng.

REL 4340 Pathways to Buddha (3). The course will explore the central themes of the main schools of

Buddhism developed in India, Tibet, China, Japan, and Korea. The themes will be examined from religious, historical, and philosophical points of view.

REL 4345 Zen Buddhism (3). This course explores Zen (Ch'an) Buddhism in its historical, theoretical, and practical dimensions with a specific aim of examining the theme that the Buddha mind can be actualized by awakening to one's own Buddha-nature.

REL 4351 Religion and Japanese Culture (3). The impact of the traditional religions, Shinto and Buddhism, on the intellectual and cultural history of Japan, especially literature and art, from the ancient and classical through the modern periods.

REL 4361 Women in Islam (3). Provides students with an understanding of the position of women in Islam through an examination of traditional and contemporary understandings of key religious texts.

REL 4364 Interpreting the Quran: Gender and Jihad (3). Introduces students to the history, interpretation and translation of the Quran through a close examination of passages related to issues of gender and jihad.

REL 4366 Voice of the Prophet (3). Familiarizes students with the position and history of prophetic traditions (Hadith) in Islam.

REL 4370 African Religions (3). Critical analysis of the beliefs, myths, symbols, and rituals of traditional African religion, African Christianity, and African Islam, and exploration of their place and function in African societies.

REL 4381 Native Religions of Latin America (3). Focuses on the relationship in Native Religions of L.A. between geography, environment and religious worldview and attitudes. Some attention to contemporary native issues and relations with states and other religions.

REL 4382 Latin American Women and Religions in the Americas (3). Examines Latinas' participation in the history of religions in the Americas in order to explain the impact of women's religious experiences in cultural, social and political realms.

REL 4420 Contemporary Religious Thought (3). A survey of major figures in contemporary theology for the purpose of understanding their thought and its application to current issues in religion and society.

REL 4425 Contemporary Issues in Christian Theology (3). Examines contemporary efforts to reflect on traditional topics in Christian theology, such as God and human nature, and explores the role of theology in addressing selected social and cultural issues.

REL 4441 Religion and the Contemporary World (3). An examination of reflection by religious thinkers and others who employ religious perspectives, concerning select conceptual issues of critical importance in the contemporary world.

REL 4461 Topics in the Philosophy of Religion (3). Examines a specific topic in the philosophy of religion, such as faith and reason, religious experience, or an important thinker. It may be repeated with permission of the instructor.

REL 4481 Contemporary Latin American Religious Thought (3). The major trends of religious thought in Latin America and their impact on the society of the area will be investigated. Special reference will be made to Post-Vatican II theology and to very recent theologies of liberation.

REL 4610 Jews of Arab Lands in the Middle Ages (3). An examination of Jewish culture from the rise of Islam in the 7th century to the end of the Middle Ages.

REL 4613 The Modernization of Judaism (3). Explores the ways in which religious beliefs and traditional concepts of Jewish self identity have changed as a result of emancipation and the participation of Jews in the modern Western world.

REL 4623 Peace, War, and Kabbalah (3). Study the basic categories of Kabbalah as an esoteric doctrine and evaluate its unique approach to war and peace within the historical context of the Sephardic Jewish experience.

REL 4626 Jewish Sephardic Thought (3). The main Sephardic and Oriental thinkers. Includes philosophers, mystics, and rabbinics.

REL 4694 Kabbalah and Sexuality (3). Exploration of the theme of sexuality within the context of Kabbalistic texts. Study of the basic categories of Kabbalah as an esoteric doctrine of the Jewish faith.

REL 4697 Sephardic Jewry Colloquium (3). Study with leading scholars of Sephardic and Oriental Jewry. This course will be taught in conjunction with the Sephardic annual lecture series highlighting new research on this Jewry.

REL 4910 Independent Research (1-6). Topics will be selected to meet the academic needs of the individual student. Prerequisite: Permission of the instructor.

REL 4912 Research Seminar in Religious Studies (3). Working on a variety of individual research projects, students explore research issues and methods. Research projects must be approved in advance. Course may be repeated. Prerequisite: Permission of the instructor.

REL 4931 Religious Studies Seminar (3). This seminar is designed for majors and other qualified students approved by the Department. The specific topic will be selected and announced in advance. The number of participants will be limited.

REL 4937 Special Topics (3). In-depth study of topics of special interest in religious studies.

REL 4941 Internship Seminar (3). Students work 5 hours a week in religious institutions; complete individualized group readings; write on individual assignments; discuss group readings in context of group experiences.

REL 4943 Independent Study on Sephardic Jewry (1-6). For advanced students who posses proven significant knowledge of the field of Sephardic and Oriental Jewry, to engage in a guided research on the topic of their choice within the field. Prerequisites: REL 4610, REL 3xxx Sephardic Jewry, SYD 4606.

REL 4944 Internship in Sephardic Jewish Organization (1-3). Work and study with the leadership of and research one of the Sephardic and Oriental communities in Florida.

Serves as a field study in which the classroom learning comes alive. Prerequisites: REL 4610, REL 3xxx Sephardic Jewry, SYD 4606.

REL 4949 Cooperative Education in Religion (3). A student majoring in Religious Studies may spend several semesters fully employed in industry, government, or other appropriate institutional setting in a capacity relating to the major. Permission of Cooperative Education and major department.

REL 5018 Religion, Literature, and Critical Theory (3). Examines intersections between world religions and contemporary literature in light of modern theories of interpretation. Themes explored include scriptural re-readings and spiritual journeys. Prerequisites: Graduate standing or permission of the instructor.

REL 5023 Religious Ritual (3). Examines the critical relationship of ritual, religious practice and belief, and culture, while introducing the principles and methods of ritual studies. Prerequisites: Graduate standing or permission of the instructor.

REL 5025 Myth and Religion (3). Investigates the role, function, and meaning of myth in religious experience and practice through an examination of specific myths, mythic patterns, and critical theories. Prerequisites: Graduate standing or permission of the instructor.

REL 5122 African-American Religion (3). Survey of development of African-American Religions with emphasis on North American experience during slavery, Jim Crow and contemporary eras. Prerequisites: Graduate standing or permission of the instructor.

REL 5125 Religion and Public Life (3). Examines the relationship of religion and government in the United States, with focus on the First Amendment and issues of separation of church and state. Prerequisite: Graduate standing or permission of the instructor.

REL 5137 North American Religion (3). Historical examination of religious groups and influences in North America, focusing on their contributions and cultural impact. Prerequisites: Graduate standing or permission of the instructor.

REL 5138 Sects, Cults, and New Religions (3). Explores and critically analyzes the multiplicity of new American religious movements and the unique combination of factors that has encouraged them. Prerequisites: Graduate standing or permission of the instructor.

REL 5143 Latinas and Religion in the Americas (3). This course will review the practices, beliefs, social and political activism, and theological and biblical reflections of Latinas in the Americas from a historical perspective to modern day.

REL 5144 Women and Religion (3). Examines the influence of religion on social construction of gender and the definition of woman's nature and role, with a focus on Western developments. Prerequisites: Graduate standing or permission of the instructor.

REL 5149 Religion, Violence, and Conflict (3). Is religion peaceful or violent? Theoretical analysis of the role of religion in violent, social and political conflicts, such as the Crusades, the Arab-Israeli conflict, and the Haitian Revolution. Prerequisites: Graduate standing or permission of the instructor.

REL 5165 Science and Religion (3). Surveys the interaction between science and religion from conflict models to integration; special attention to specific natural sciences including cosmology and biology. Prerequisites: Graduate standing or permission of the instructor.

REL 5182 Religions and Ethics (3). Investigation of methods, resources for ethics in world religions, and some examples of issues. Prerequisites: Graduate standing or permission of the instructor.

REL 5183 Ethics and Environment (3). A study of cultural and religious sources of contemporary ethical attitudes and values about the environment. Also includes consequences of these for specific environmental issues. Prerequisites: Graduate standing or permission of the instructor.

REL 5184 Sex, Ethics, and Religion (3). Religious treatment of sexual activity, desire and procreation in major religions, with special focus on contemporary scientific research on sexuality and spirituality. Prerequisites: Graduate standing or permission of the instructor.

REL 5192 Seminar in Mysticism (3). The issues of consciousness, language, and morality in mystical tradition of the east and west, including Kabbalah, Neoplatonism, Sufism, Yoga, Taoism, and Zen. Prerequisites: Graduate standing or permission of the instructor.

REL 5208 Studies of the Dead Sea Scrolls (3). Overview of the Dead Sea Scrolls explores the new techniques being used in their study. Prerequisites: Graduate standing or permission of the instructor.

REL 5211 Bible I: The Hebrew Scriptures (3). Extensive reading in the Hebrew Scriptures how the various texts of the Hebrew Scriptures came to be written, and how they can be interpreted - both within the context of faith communities and within the cultural contexts out of which the texts were written. Prerequisites: Graduate standing or permission of the instructor.

REL 5232 Hebrew Exegesis I (3). Provides a comprehensive survey of the fundamentals of the language of the Hebrew Bible designed to equip the student for the task of exegesis. Prerequisites: Graduate standing or permission of the instructor.

REL 5233 Hebrew Exegesis II (3). A continuation of Hebrew Exegesis I emphasizing the reading of select passages of the Hebrew Bible to develop skills in translation and interpretation. Prerequisites: REL 5232 and graduate standing.

REL 5242 New Testament and Qumran (3). Detailed investigation of the possible contacts between the New Testament and Qumran in such areas as Biblical Exegesis, Apocalypticism, Eschatology, and Messianism. Prerequisite: Graduate standing

REL 5244 Bible II: The New Testament (3). History, theology, and interpretation methods of the New Testament. Prerequisites: Graduate standing or permission of the instructor.

REL 5262 New Testament Greek Exegesis I (3). A detailed overview of the principles of Greek grammar that shows the student how to use Greek in the study of the New Testament. Prerequisite: Graduate standing.

REL 5263 New Testament Greek Exegesis II (3). Careful reading of selected passages of the New Testament and early Christian literature designed to develop skills in translation and interpretation. Prerequisites: REL 5262 and graduate standing.

REL 5331 Religions of India (3). Topics include: religion in prehistoric and ancient India, classical Hindu texts and schismatic movements, medieval theism, the acculturation of extrinsic religions, Hindu-Muslim-Sikh syncretism, and the modern period. Prerequisites: Graduate standing or permission of the instructor.

REL 5346 Seminar on Buddhism (3). The central doctrines and rituals of the Buddhist tradition, including the views on causality, mindfulness, monasticism, salvation, purity, and ethics in the Theravada, Tantric, and Zen schools. Prerequisites: Graduate standing or permission of the instructor.

REL 5352 Religions of East Asia (3). The history, philosophy, and cultural impact of the major religious traditions of East Asia, including Confucianism, Taoism, Buddhism, Shinto, and syncretic folk religions. Prerequisites: Graduate standing or permission of the instructor.

REL 5360 Classical Arabic (3). Introduces the grammar and vocabulary of classical Arabic necessary for developing the ability to read classical texts.

REL 5365 Advanced Interpretation of the Quran: Gender and Jihad (3). History, interpretation and translation of the Quran through a close examination of passages related to issues of gender and jihad.

REL 5368 Voice of the Prophet (3). Familiarizes students with the position and history of prophetic traditions (Hadith) in Islam.

REL 5372 African Spirituality (3). Intensive investigation of select forms of traditional spirituality in sub-Saharan Africa, including ritual, sacrifice, and spirit possession, and Africanized Christian and Islamic devotion. Prerequisites: Graduate standing or permission of the instructor.

REL 5384 Rasta, Vodou, Santeria (3) Critical, sociological and phenomenological analysis of the history, beliefs, rituals, and social significance of Rastsfarianism, Vodou, and Santeria on the Caribbean and the United States. Prerequisites: Graduate standing or permission of the instructor.

REL 5385 Native American Religions (3). An advanced study of Native American religions and the methods employed to investigate them. Attention will be given to traditional and contemporary expressions. Prerequisites: Graduate standing or permission of the instructor.

REL 5386 Latinas' Religious Experience (3). Focus on the diversity of religious experiences among women born and educated in Latin cultures such as: Brazil, Haiti and Hispanic American, including Hispanic in the U.S.

REL 5387 Native Religions of Latin America (3). Focuses on major culture areas, history of tribes, changes in religious practice through contact with Christianity.

REL 5394 Jewish Mystical Texts (3). A study of the major movements and figures in the development of Jewish mysticism through its significant texts, from biblical times up to the present. Prerequisites: Graduate standing or permission of the instructor.

REL 5435 Feminist Theology (3). Surveys the development of feminist theology, both deconstructive and reconstructive, principally in Christianity, but also in other religions. Prerequisite: Graduate status.

REL 5462 Religion and Philosophy (3). Examines the use of philosophical reasoning to justify religious belief or its rejection. Such topics as natural theology, atheism and fideism will be examined. Prerequisites: Graduate standing or permission of the instructor.

REL 5488 Theology and Liberation Movements (3). Comparison of Latin American, feminist, and African American theologies of liberation, including methods, social analysis, social location, interlocutor, ecclesiology, theology, eschatology and use of scripture. Prerequisites: Graduate standing or permission of the instructor.

REL 5495 Interreilgious Dialogue (3). The intellectual basis, the classical formulations, and the contemporary practice of interreligious dialogue in a variety of cultural settings. Prerequisites: Graduate standing or permission of the instructor.

REL 5501 History of Christianity I (3). Christianity from its origins to the Middle Ages. Doctrinal and organizational development of the church and characteristic aspects of its spiritual life. Prerequisites: Graduate standing or permission of the instructor.

REL 5502 Saints, Witches and Missionaries (3). Survey of movements, reforms, divisions, and major ideas within institutional Christianity, 1400 to the present. Prerequisites: Graduate standing or permission of the instructor.

REL 5515 History of Early Christianity (3). Origin and growth of Christianity from the first to the fifth century, and the adaptation of its message to the Greco-Roman world. Prerequisites: Graduate standing or permission of the instructor.

REL 5565 Modern Catholicism (3). Theology and liturgical practice in the Roman Catholic Church from Trent (16th C) to the present, with primary and secondary sources. Prerequisites: Graduate standing or permission of the instructor.

REL 5605 Studies in Judaism (3). Historical overview of Jewish belief and practice, with special consideration of Jewish ritual life. Prerequisites: Graduate standing or permission of the instructor.

REL 5606 Rabbinic Judaism (3). The theology and ideologies of the 1700-year period in the history of Judaism known as Rabbinic Judaism. Prerequisites: Graduate standing or permission of the instructor.

REL 5614 Ancient Judaism (3). The history, literature and characteristic institutions of Judaism from the Persian period to Amoraic times. Attention given to developments

in the land of Israel and the diaspora. Prerequisites: Graduate standing or permission of the instructor.

REL 5615 Medieval Judaism (3). The works of major thinkers in Medieval Judaism, including Maimonides, Nahmanides, Halevi, Luzatto, and such topics as Jewish mysticism (Kabbalah) and Hasidism. Prerequisites: Graduate standing or permission of the instructor.

REL 5616 Religion, Culture and Politics in Israel (3). Exploration of the history of modern Israel. Discussion of issues, state and religion, ethnic and denominational tensions, democratic characters of the state and the Israeli-Palestinian conflict.

REL 5617 Jews and Muslims in the Middle Ages (3). Study of Jewish culture from the rise of Islam in the 7th century -- usually considered the start of Jewish Medieval Era -- to the end of the Middle Ages.

REL 5618 Modern Judaism (3). Explores the ways in which religious beliefs and traditional concepts of Jewish self identity have changed as a result of emancipation and the participation of Jews in the modern Western world. Prerequisites: Gradaute standing or permission of the instructor.

REL 5619 Holocaust Representations: Religion and Remembrance (3). Examines the symbolic and cultural representations of the Holocaust through its religious/ theological discourse and its remembrance. Implications for Jewish life and thought are also explored. Prerequisites: Graduate standing or permission of the instructor.

REL 5620 Kabbalah and Gender (3). Exploration of the theme of Gender within the context of Jewish mysticism. Analysis of central Kabbalistic texts pertaining to the issue of gender and sexuality.

REL 5628 Jewish Thought and Thinkers (3). The principal of Sephardic and oriental thinkers since the Middle Ages; includes philosophers, rabbinics.

REL 5629 Kabbalah, Peace and War (3). Study of the basic categories of Kabbalah as an esoteric doctrine and evaluate its unique approach to peace and war within the historical context of the Jewish mystical experience.

REL 5698 Sephardic and Oriental Jewry Colloquium (3). In depth examination of important issues in the study of Sephardic and Oriental Jewry.

REL 5907 Independent Study in Sephardic and Oriental Jewry (1-6). For advanced students who possess proven significant knowledge of the field of Sephardic and Oriental Jewry, to engage in a guided research on the topic of their choice within the field. Prerequisites: REL 4610, REL 5xxx Jews of Arab Lands, REL 3xxx Sephardic Jewry, SYD 4606.

REL 5934 Graduate Pedagogy (1-3). Advanced work in Religious Studies pedagogy, including classroom teaching, assignment development and grading, and seminar discussion of pedagogical issues.

REL 5945 Internship in Sephardic and Oriental Jewry (1-3). Work and study with the leadership of and research one of the Sephardic and Oriental communities in Florida. This serves as field study in which the classroom learning comes alive. Prerequisites: REL 4610, REL 5xxx Jews of Arab Lands, REL 3xxx Sephardic Jewry, SYD 4606.

Sociology and Anthropology

Richard Tardanico, *Associate Professor and Chairperson*
Maria Aysa-Lastra, *Assistant Professor*
Jerald B. Brown, *Associate Professor*
Janet M. Chernela, *Professor Emerita*
Juliet Erazo, *Assistant Professor*
Stephen M. Fjellman, *Professor*
Chris Girard, *Associate Professor*
Hugh Gladwin, *Associate Professor and Director, Institute for Public Opinion Research*
Liliana Goldin, *Professor and Director, Graduate Program*
Guillermo J. Grenier, *Professor*
Antonio Jorge, *Professor*
A. Douglas Kincaid, *Associate Professor and Vice Provost, International Studies*
Abraham D. Lavender, *Professor*
Barry B. Levine, *Professor*
Shearon A. Lowery, *Associate Professor*
Sarah J. Mahler, *Associate Professor and Director, Center for Transnational and Comparative Studies*
Anthony P. Maingot, *Professor Emeritus*
Kathleen Martin, *Associate Professor*
Andrew S. Mathews, *Assistant Professor*
Betty Hearn Morrow, *Professor Emerita*
Laura Ogden, *Assistant Professor*
Lisandro Perez, *Professor*
Marifeli Perez-Stable, *Professor*
Jean M. Rahier, *Associate Professor*
Alex Stepick, *Professor and Director, Immigration and Ethnicity Institute*
William T. Vickers, *Professor Emeritus*
Dennis Wiedman, *Associate Professor*
Lois West, *Associate Professor*

Affiliate Faculty
David B. Bray, *Professor, Environmental Studies*
William W. Darrow, *Professor, Public Health*
Bruce Nissen, *Professor, Labor Studies*

Bachelor of Arts in Sociology/Anthropology

Degree Program Hours: 120

Lower Division Preparation

To be admitted to the upper division, students must meet the University's and College's admission requirements. Students without an AA degree must have the background to handle advanced academic work.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable to the program.

Required Courses

Introduction to Anthropology, Introduction to Cultural Anthropology, or Introduction to Sociology. If the student does not have one of these courses, it will be required as part of the upper division program.

Recommended Courses

Other anthropology and sociology courses; ecology, economics, geography, history, political science, psychology; arts, biology, English, foreign languages, mathematics, philosophy.

Upper Division Program (60)

Required Courses (31)

Core Courses

ANT 3034	Anthropological Theories	3
SYA 3300	Research Methods	4
SYA 4010	Sociological Theories	3
SYG 4972*	Senior Capstone Seminar	3

***Prerequisites: SYA 3300 and either ANT 3034 or SYA 4010**

One course from the following: Societies in the World (SYP 3456), World Ethnographies (ANT 3212), Advanced Research Methods (SYA 4450), or Qualitative Research Methods 3

Area Courses: Either Anthropology or Sociology 15

Electives: with the approval of the faculty advisor 29

A grade of 'C' or higher is required for all courses that make up the major (16 semester hours of core courses and 15 semester hours of area courses in Sociology and Anthropology).

Minor in Sociology and Anthropology

Required Courses

Fifteen credits in the Department of Sociology/ Anthropology including two core courses:

Core Courses

ANT 3034	Anthropological Theories	3
SYA 3300	Research Methods	4
SYA 4010	Sociological Theories	3
SYG 4972*	Senior Capstone Seminar	3

***Prerequisites: SYA 3300 and either ANT 3034 or SYA 4010**

Combined BA in Sociology-Anthropology/ MA in Comparative Sociology

The combined BA/MA program allows qualified full time students to earn both degrees in a shorter time than would otherwise be possible. Entry to the program may affect eligibility for some types of financial aid and students are advised to investigate this tissue before applying to the combined BA/MA program.

Students may count up to 12 hours of graduate courses toward both the BA and MA degrees. Hence the two degrees may be earned with a minimum of 144 hours instead of the 154 required if the degees were pursued separately. Students in this program could choose a thesis or non-thesis MA option.

Students must apply no later than their second junior year semester for admission the following semester. Students entering the program in the fall of their senior year may be able to double count the full 12 semester hours over two semesters.

To enter the program the students apply and are accepted by the Department. They will also need to apply to the graduate program when they complete the first year, after receiving the BA degree.

Admission Requirements

Admission to the combined BA/MA program is competitive; meeting the minimum requirements will not guarantee admission. Entry to the program requires prior admission by the Department and approval by the College Dean. Students must also apply and be accepted by the Graduate School in their semester of BA receipt. Graduate

School admission requires a separate application. Actual entry to the Graduate School occurs on completion of the undergraduate degree. At the time of application to the Department the student must have:

- Overall undergraduate GPA of 3.5 or higher.
- Minimum GRE (verbal + quatitative) score of 1100.
- Successful completion of Senior Capstone course by the Spring semester of their Junior year.
- Completion of ANT 3034 (Anthropological Theories) and SYA 4010 (Sociological Theories).
- Completion or current registration in SYA 3300 (Research Methods).
- Students are strongly recommended to take an introductory Statistics course during their junior year.
- At least 15 hours in undergraduate sociology/anthropology courses in addition to the courses listed above.
- A writing sample.
- Letters of Recommendation from two faculty in the Department of Sociology/Anthropology.
- A 2-4 page statement of purpose describing the student's academic plans and longer-term career goals.

MA Courses taken during the student's senior year:

SYA 6125	Sociocultural Theories A
SYA 6126	Sociocultural Theories B
SYA 6305	Research Methods I
SYA 6306	Research Methods II

Combined BA/MA Program Requirements

Each student must:

- Apply and be admitted by the Department. In the final undergraduate semester apply and be accepted by the Graduate School.
- Complete all undergraduate major requirements
- Complete twelve graduate hours (6000 level courses listed above) taken while the student is an undergraduate.
- Complete all MA requirements (with either thesis or non-thesis program).

Awarding of Degree

- The BA will be awarded when the BA requirements are completed.
- The MA will be awarded when the BA and MA requirements are completed

Course Descriptions

Definition of Prefixes

ANG Anthropology Graduate; ANT-Anthropology; ISS-Interdisciplinary Social Sciences; SYA-Sociological Analysis; SYD-Sociology of Demography and Area Studies; SYG-Sociology, General; SYO-Social Organization; SYP-Social Processes.
F-Fall semester offering; S-Spring semester offering, SS-Summer semester offering. (Subject to Change)

ANG 5396 Representations of Africa and Africans in Films (3). Analyzes representations of Sub-Saharan Africa and Africans in various cinematic traditions (including documentaries) and examines these representations in socioeconomic and political contexts. Prerequisite: Permission of Instructor.

ANG 5397 Advanced African Diaspora Cultures and Performativity (3). Examines different approaches adopted by African diaspora studies scholars in social and cultural anthropology, and recent theoretical texts and debates in Performance Studies. Prerequisite: Permission of Instructor.

ANG 5403 Ecological Anthropology (3). Theories of human adaptation, including environmental determinism, possibilism, cultural ecology, materialism, and evolutionary ecology. Credit for both ANT 3403 and ANT 5548 will not be granted. Prerequisites: Graduate standing or permission of the instructor. (SS)

ANG 5496 Social Research and Analysis (3). A graduate overview of the scientific methods used in intercultural studies. Includes the philosophical basis of science, research design, and hypothesis testing using both secondary and original data. Students will conduct a research project in this course. Prerequisites: Graduate status or permission of the instructor. (F)

ANG 5905 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

ANG 5915 Directed Field Research (VAR). Permission of the instructor required. (F,S,SS)

ANT 2000 Introduction to Anthropology (3). This course surveys the four subfields of anthropology, including physical anthropology and human evolution, archaeology, cultural anthropology, and linguistics. Introduces basic anthropological theories and concepts. (F,S,SS)

ANT 3034 Anthropological Theories (3). This course examines the process of theory building and explanation in the social sciences, and outlines the historical and philosophical foundations of anthropological thought. Theorists and schools of thought reviewed include Darwin and evolution; Boas and historical particularism; Freud and culture and personality; and Malinowski and functionalism. (F,S)

ANT 3101 Introduction to Archaeology (3). The history of archaeology is traced from its origins to its emergence as a scientific discipline within anthropology. Students are familiarized with the concepts and methods of modern archaeology, and with the scientific goals of archaeological research. (F,S)

ANT 3144 Prehistory of the Americas (3). Early man in the Americas is examined through archaeological records. (S)

ANT 3212 World Ethnographies (3). Introduces students to ethnography, which is the art of writing culture. Teaches students to compare and contrast cultures through ethnographic reading, writing, and critiques. Prerequisites: ANT 2000 (Intro to Anthropology) or SYG 2000 (Intro to Sociology).

ANT 3241 Myth, Ritual, and Mysticism (3). Surveys anthropological approaches to the study of myth, ritual, and mysticism, as religious and symbolic systems. The social and psychological functions of myth and ritual in small-scale and complex societies will be compared. (S)

ANT 3255 Peasant Society (3). Comparative study of peasant societies with emphasis on the concepts of folk community, traditional culture, and modernization. Data on peasantry in Latin America and other culture areas will be reviewed.

ANT 3302 Anthropology of Sex and Gender (3). Cross-cultural ethnographic data will be utilized to examine the enculturation of sex roles, attitudes, and behavior; cultural definitions of maleness and femaleness; and varieties of human sexual awareness and response. (F)

ANT 3304 Voices of Third World Women (3). Deals with the literature in the social sciences and humanities written by women of the Third World or others who have recorded their testimony.

ANT 3403 Cultural Ecology (3). Examines systems of interaction between humans and their environment; the roles of social, cultural, and psychological factors in the maintenance and disruption of ecosystems; and interrelations of technological and environmental changes. (SS)

ANT 3409 Anthropology of Contemporary American Society (3). The application of classical anthropological methods and concepts to the analysis of contemporary American culture. Investigation of a unique cultural scene will involve the student in field work and the preparation of an ethnographic report. (F,S)

ANT 3442 Urban Anthropology (3). Anthropological study of urbanization and urban life styles, with particular emphasis on rural-urban migration and its impact on kinship groups, voluntary associations, and cultural values.

ANT 3451 Anthropology of Race and Ethnicity (3). Considers ethnicity and concepts of race in cross-cultural perspectives with emphasis on the historical and cultural and construction of identity, intercultural relationships, and social stratification. (F,S)

ANT 3462 Medical Anthropology (3). A survey of basic concepts; examination of preliterate and non-western conceptions of physical and mental health and illness; emphasis on cultural systems approach to the study of illness and health care. Background in biology, medicine, or nursing helpful. Prerequisite: Permission of the instructor. (S)

ANT 3467 Food and Culture (3). Introduction to the anthropology of food: European conquest of the New World, theories of famine, the industrial food system, food and nationalism, the organic food movement.

ANT 3497 Introduction to Qualitative Research Methods (3). Introduction to qualitative data collection, analysis, and documentation. Fieldwork experiences include observation, interviewing, and utilizing non-obtrusive measures. Prerequisites: SYA 3300 (Research Methods) and SYA 4010 (Sociological Theories).

ANT 3500 Introduction to Physical Anthropology (3). A study of the biological history of man as interpreted through the theory of evolution, anatomy and the fossil record, contemporary population genetics, and the concept of race. (F)

ANT 3640 Language and Culture (3). Examines the relationship between language and culture, with emphasis on the linguistic structuring of perception and culture; speech styles and their relationship to the identities and inequalities associated with gender, class and ethnicity; and the politics of bilingualism and multilingual nations. (F)

ANT 3780 Anthropology of Brazil (3). Anthropological perspective on Brazilian society and culture. Covers classic and contemporary studies of Brazil including such topics as race, ethnicity, national identity, regionalism, and social organization. (S)

ANT 4164 Inca Civilization (3). A survey of Andean culture history with emphasis on Inca and pre-Inca civilizations. Includes discussion of peopling of South America, habitats, and the transition from foraging to village settlements, and the rise of indigenous empires. (S)

ANT 4211 - 4328 Area Studies (3). Surveys selected world areas with an emphasis on ethnicity, social stratification, and processes of social change and globalization. Areas to be studied may include: (1) North America; (2) South or Latin America; (3) the Caribbean; (4) Africa; and (5) Asia. Specific topics may vary. May be repeated for credit with change of topic. (F,S)

ANT 4273 Law and Culture (3). A cross-cultural examination of the practical and theoretical relationships between the legal system and other aspects of culture and society. (S)

ANT 4306 The Third World (3). An interdisciplinary, cross-cultural survey of the factors contributing to the emergence of the Third World. Significant political, economic, pan-national and pan-ethnic coalitions are analyzed. (F)

ANT 4312 American Indian Ethnology (3). An examination of the socio-cultural patterns of selected American Indian groups as they existed in the indigenous state, prior to European contact.

ANT 4324 Mexico (3). An interdisciplinary examination of the major social, cultural, economic, and political factors contributing to the transformation from the Aztec empire to colonial society to modern Mexico. (F)

ANT 4328 Maya Civilization (3). A survey of the culture and intellectual achievements of the ancient Maya civilization of Mesoamerica. Course includes: history and social-political structure, archaeology, agriculture and city planning, mathematics, hiero-glyphics, astronomy, and calendars. (F,S)

ANT 4330 Contemporary Maya Cultures (3). Studies the Maya cultures of Mexico and Central America from the Conquest to the present. Investigates the political, social, economic, religious, and cultural life of contemporary Maya peoples. (F)

ANT 4332 Latin America (3). Examines cultures and societies of the Latin American region. Topics may include indigenous and peasant cultures, social movements, urban and global transformations, and class, gender and ethnicity. (F)

ANT 4334 Contemporary Latin American Women (3). The lives of 20th century Latin American women and gender analysis along class and ethnic dimensions. Discussion of religion, family, gender roles, machismo, and women's roles in socio-political change. (F)

ANT 4340 Cultures of the Caribbean (3). Provides an overview of cultures and societies of the Caribbean and Circum-Caribbean region with a focus on local cultures and their historical transformations, transnationalism and globalization, and class, gender and ethnicity. (F)

ANT 4343 Cuban Culture and Society (3). Examines the culture of contemporary Cuba, with emphasis on the Cuban Republic, the transformations associated with the 1959 revolution, the impact of international relations, and transnational Cuban communities. (S)

ANT 4352 African Peoples and Cultures (3). This course includes a survey of the cultures and civilizations of Sub-Saharan Africa. It includes discussions of history, geography, sociopolitical structures, religion, art, music, and oral literature. (F)

ANT 4353 Africa and Africans in Film (3). Analyzes representations of Sub-Saharan Africa and Africans in various cinematic traditions (including documentaries), and examines these representations in socioeconomic and political contexts. Prerequisite: Permission of instructor.

ANT 4390 Explorations in Visual Anthropology (3). An examination of the use of film in anthropology, both as a method of ethnographic documentation and as a research technique for analyzing non-verbal modes of communication. Documentary films and cross-cultural data on paralanguage, kinesics, proxemics, and choreometrics will be reviewed and discussed. (F)

ANT 4397 African Diaspora Cultures and Performativity (3). Examines different approaches adopted by African diaspora studies scholars in social and cultural anthropology, and recent theoretical texts and debates in Performance Studies. Prerequisite: Permission of Instructor.

ANT 4406 Anthropology of War and Violence (3). The purpose of this course is to introduce the scientific study of human aggression and warfare from an evolutionary and cross-cultural perspective in order to gain a better understanding of the causes and consequences of such behavior, and to evaluate proposed options for the control of warfare.

ANT 4422 Kinship and Social Organization (3). Comparative study of kinship systems and the social organization in tribal, peasant, and industrial societies. Emphasis on the ethnographic record in anthropology. Prerequisites: ANT 2000 or permission of the instructor. (F)

ANT 4433 Psychological Anthropology (3). Cross-cultural studies in cognition, possession states, myth making and world view are examined. The interface of anthropology, psychology and psychiatry is reviewed. (S)

ANT 4461 Hallucinogens and Culture (3). Cross-cultural examination of the political, religious, and socio-cultural factors related to altered states of consciousness, including dreams and images. Applications to contemporary psychology are explored. (S)

ANT 4473 Anthropology of Globalization (3). Examination of global economic, political, and cultural processes including the movements of people, commodities, and capital. Study of formation of identities, consumption practices, and gender dynamics.

ANT 4723 Education and Culture (3). A cross-cultural examination of educational and socialization processes, their functions in the larger society, and the value systems they transmit.

ANT 4905 Directed Individual Study (1-2). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

ANT 4915 Directed Field Research (1-2). Permission of the instructor required. (F,S,SS)

ANT 4930 Topics in Anthropology (3). Special courses dealing with advanced topics in the major anthropological subdisciplines: (1) social and cultural anthropology, (2) applied anthropology, (3) physical anthropology, (4) linguistics, and (5) archaeology. Instruction by staff or visiting specialists. Topics to be announced. Instructor's permission required. May be repeated. (F,S)

ANT 4941 Holocaust Documentation Internship (3). History and significance of the Holocaust; issues in oral history; interviewing Holocaust survivors; transcribing and archiving interview data.

ANT 5318 American Culture and Society (3). Anthropological analysis of the cultures and subcultures of the United States, focusing on the social, ethnic, and regional organizations and their corresponding value and symbolic systems. Prerequisites: Graduate standing or permission of the instructor. (S)

EVR 4595 South Florida Environmental Conflicts (3). Research on environmental conflicts in South Florida. Theories of environmental conflicts, research design, semi-structured interview and survey methods, group research projects.

ISS 3330 Ethical Issues in Social Science Research (3). An introduction to the problems of possibilities of ethical premises in the perspectives and work of social scientists. Examination of historical interrelationships between moral philosophies and developing scientific methodologies. Analyses of contemporary social ethicists' attempts to assume moral postures while examining social relations. Case studies involving issues such as nation building in areas of accelerated change including Africa and Asia. (F,S)

SYA 3300 Research Methods (4). An introduction to the scientific method and its application to anthropological and sociological research. Topics include: formulation of research problems; research design; field methods and collection of data; hypothesis testing and interpretation of results. (F,S)

SYA 3949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Sciences, Sociology, or Psychology) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

SYA 4010 Sociological Theories (3). Examines the emergence of sociology as the study of social relations. Compares and contrasts the work of selected theorists, with respect to their methodologies, treatment of the emergence and consequences of modern society, political sociology, conception of social class, and analysis of the

role of religion in society. The student is expected to gain in-depth knowledge of opposing theories, as well as an appreciation of the contingent nature of sociological theories. (F,S)

SYA 4011 Advanced Social Theory (3). An advanced analysis of classical and contemporary sociological theories, with particular attention paid to their conceptions of the nature of society, forms of social organization and social change, and relationships among the individual, groups, and society.

SYA 4330 Basic Research Design (3). Advanced course in social research, providing research practicum for studying patterns of human behavior; analyzing findings of studies, methodical and analytical procedures; reporting and explaining these results; and applying these inferences to concrete situations. Also acquaints the student with the use of computers in research in the behavioral sciences. (F)

SYA 4354 Historical Sociology (3). The authenticity and meaning of historical data for sociological research. Systematic theories in history are analyzed for their utility in sociology. Particular emphasis on the sociological uses of the comparative method in history.

SYA 4450 Advanced Research Methods (3). Advanced topics in sociological research are explored. Focus will be on measurement and analysis issues, although topics related to sampling and data collection are also addressed. Prerequisites: SYA 3300 (Research Methods) and SYA 4010 (Sociological Theory).

SYA 4621 Sociology of the 20th Century (3). An examination of the sociological implications evident in the events of our modern world. Heavy reliance is placed on intellectual materials other than social science, especially literature.

SYA 4905 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

SYA 5135 Sociology of Knowledge (3). The study of the theoretical basis of knowledge and the inter-relatedness of knowledge and social factors, particularly as knowledge relates to institutional forms of behavior. (S)

SYA 5909 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

SYA 5941 Directed Field Research (VAR). Permission of the instructor required. (F,S,SS)

SYD 3600 Community and Society (3). The social group known as the community is identified and analyzed for its distinctive qualities. By distinguishing it from other social groups, its dominating force on the behavior of its members is isolated. Attention is given to the interaction of individuals and groups as they exist within the community. (S)

SYD 3620 Sociology of Miami (3). Study of Miami and Dade County using sociological and anthropological techniques and theory, fieldwork assignments, readings and guest speakers. (F)

SYD 3650 Sociology of Gender and Power in Asia (3). Examines cultural ideologies and systems of power in gender relations in contemporary Asia.

SYD 3804 Sociology of Gender (3). An examination of women's and men's roles, statuses, and life opportunities in society. Consideration of current theories of gender inequality. (S)

SYD 3811 Sociology of Women (3). Examines the nature of the social construction of female gender identity in American society.

SYD 4237 Immigration and Refugees (3). Examines the causes and consequences of immigration and refugee flows. Focuses on sociological and anthropological issues.

SYD 4410 Urban Sociology (3). Study of the urban community, with particular attention to the problems associated with urban life. The development of urban societies is reviewed historically, and factors associated with this development are identified. (F)

SYD 4604 Cities and Sustainability: Latin America, Africa, and Asia in a Globalizing World (3). Focuses on challenges of environmental sustainability of poor cities in a globalizing world. Emphasizes methodological frameworks to analyze the roots of the problems and potential solutions. Prerequisites: SYG 2000 or ANT 2000 or EVR 1017 or permission of the instructor.

SYD 4606 World Jewish Communities (3). An overview of Jewish communities throughout the world. Analyze their origins, migrations, demographic and social characteristics. Covers Ashkenazi, Sephardi, and Oriental communities.

SYD 4610 Topics in Sociology (3). Special courses on the social structures and related problems of specific geographical and cultural areas. Topics may vary. May be repeated for credit with change of topics. Can be taken for credit no more than twice with any given instructor.

SYD 4621 Cubans in the U.S. (3). An overview of Cuban migration to the U.S. and the establishment of Cuban communities in this country. Emphasis on the development and dynamics of the enclave in Miami.

SYD 4630 Latin American and Caribbean Societies (3). Exploration of the types of social structures, statuses, and roles, and the resulting distributions of power and authority in the hemisphere.

SYD 4700 Sociology of Minorities/Race and Ethnic Relations (3). The study of social groups identified by racial or ethnic characteristics. Particular emphasis is given to the role of minorities in society, and the interactive process resulting from their contact with the majority. Social behaviors of minorities are reviewed and related to institutional structures and their accepted norms. (F,S)

SYD 4703 Depiction of Jews in Films (3). A comparison of films about Jewish communities from different parts of the world to analyze how Jewish communities interact with different societies.

SYD 4704 Seminar in Ethnicity (3). An upper-level seminar, stressing a comparative sociological approach to the study of two or more racial-ethnic groups. Emphasis on the interrelations of ethnic communities within the same society and the socio-political effects of these

interrelations. Prerequisites: SYD 4700 or permission of the instructor. (S)

SYD 4801 Sociological Theories of Gender (3). Examines theories of gender in classical and contemporary sociological theory. Prerequisites: SYA 4010 or permission of the instructor.

SYD 4802 Sociology of Sexual Minorities (3). Social construction and development of sexual and gender identities in Western societies and cross-culturally. Topics include various contemporary social issues regarding sexuality and minority status.

SYD 4820 Sociology of Men (3). Examines the nature of the social construction of male gender identity in American society. (F)

SYD 5045 Population and Society (3). The study of the processes that determine the size and composition of human populations. Emphasis on demographic transition theory and the antecedents and consequences of differential growth rates throughout the world.

SYD 5607 Advanced World Jewish Communities (3). Overview of Jewish communities throughout the world. Analyzes their origins, migrations, demographic and social characteristics. Covers Ashkenazi, Sephardi, and Oriental communities. Prerequisite: Graduate Standing.

SYG 2000 Introduction to Sociology (3). This course introduces the sociological perspective and method, and the basic areas of sociological interest such as socialization, sex roles, social groups, race and ethnic relations, deviance and social control, social stratification, and urban life. (F,S,SS)

SYG 2010 Social Problems (3). An introduction to the concept of a social problem and the approaches used to understand more fully the total dimensions of some specific problems. Special emphasis is given to clarifying one's understanding of the underlying nature of selected social problems, an analysis of those aspects amenable to remedy, and an inventory of the knowledge and skills available. (F,S,SS)

SYG 3002 Basic Ideas of Sociology (3). The course introduces the student to the ideas of community, authority, status, alienation, and the sacred, as used in sociological literature. (F,S,SS)

SYG 3320 Social Deviancy (Deviant Behavior) (3). The study of behavior that counters the culturally accepted norms or regularities. The social implications of deviancy are reviewed, and theoretical formulations regarding deviant behavior are analyzed. (S,SS)

SYG 4003 Sociology through Film (3). Popular and documentary films as data for the analysis of various sociological problems. (F)

SYG 4060 Sociology of Sexuality (3). Applies sociological perspectives to sexual attitudes and behavior, examining various world cultures. Topics include premarital and extramarital sex, sexual orientation, and prostitution. (F,S)

SYG 4972 Senior Capstone Seminar (3). Synthesizes and builds upon the major curriculum's components of inquiry, literacy, and in-depth study. Students write a research paper and present it orally to a departmental forum. Satisfies SACS requirements in oral and computer competency. Prerequisites: SYA 3300 and ANT 3034 or SYA 4010.

SYO 3120 Marriage and the Family (3). Considers marriage and kinship, and their relationships with political, economic, cultural and social factors. Emphasizes the distinction between family and other social units, and the changing social arrangements and exceptions associated with family and gender roles. (F,S,SS)

SYO 3250 School and Society (3). A specialized course dealing with the place of schools (particularly public) in society, the import of social criteria for school personnel, and the influence of such criteria on educational processes within the school system (institution). (F)

SYO 3400 Medical Sociology (3). An introductory overview of the social facets of health, disease, illness, and the organization/delivery of medical care and health care. (F,S)

SYO 3401 Sociology of Health Behavior (3). Provides a sociological perspective on health behavior. Topics include health as a social construct; personal, familial, and social/cultural determinants of health behavior; and health care delivery.

SYO 3546 Sociology of Groups and Organizations (3). Introduction to the study of groups and organizations from a sociological perspective.

SYO 4130 Comparative Family Systems (3). The study of family organization and function in selected major world cultures. Emphasis is given to the inter-relationships of the family, the economic system, urbanization, and human development.

SYO 4300 Political Sociology (3). The underlying social conditions of political order, political process, and political behavior are explored. Examples are drawn from empirical and theoretical studies of power, elites, social class and socialization. (S,SS)

SYO 4360 Work and Society (3). Provides an overview of the relationships among labor, economic and social systems, and political economy. Topics include changing patterns of employment and unemployment, social class, industrial and service economies, and processes of globalization. (F)

SYO 4410 Sociology of Mental Illness (3). Contemporary issues in mental health and illness from a sociological perspective. Includes differential prevalence, health, and illness behaviors, organization of care, social policy, and social control. (F)

SYO 4420 Comparative Sociology of Health Care Systems (3). Health care policies, organization, and systems from a cross-national perspective, focusing on issues such as access, insurance, corporation, and spiraling costs. (S)

SYO 4530 Social Inequality (3). Examines various forms of social stratification and political and economic systems. Topics may include the identities and inequalities associated with class, ethnicity and gender; the relationships among social structure, ideology and the state; and social justice movements. (S)

SYO 4550 Comparative Sociology (3). A cross-cultural and cross-national survey of sociological studies, with particular emphasis on theoretical and methodological issues. Examples will be drawn from studies on culture patterns, social structures, sexual mores, power relationships and the ethical implications of cross-national research.

SYO 4571 Organizations and Society (3). The course deals with the micro-sociological problems of the internal organization of bureaucracies; the relation between bureaucracy and personality; the macro-sociological problems of the emergence of the bureaucratic form; bureaucratization and contemporary life; general problems of affluence; meaningless activity; ways to beat the bureaucracy; and bureaucracy and atrocity. (S)

SYP 3000 The Individual in Society (3). Introduction to the study of the individual as a social being, with emphasis on theoretical conceptions of the relationship between the individual and society, and structural and cultural constraints versus individual agency. (F)

SYP 3300 Social Movements (3). An introduction to the study of social movements, with emphasis on their relationship with social inequalities, identities, political and cultural conflict, and state authority as organized at the national, subnational, and transnational levels. Topics may include a comparison of historical and contemporary social movements, local, national and transnational movements; and the relationship between mass media, public attitudes, and social action. (S)

SYP 3400 Social Change (3). The study of major shifts in focus for societies or culture, and the indicators associated with such changes. Particular attention is given to the development of industrial societies and the dynamics involved for nations emerging from various stages of 'underdevelopment'. (S)

SYP 3456 Societies in the World (3). An introduction to the study of local societies in worldwide perspective. Addresses local-global issues such as gender, social class, economy, politics, migration, and environmental destruction.

SYP 3520 Criminology (3). An introduction to the study of criminal behavior, its evidence in society, society's reaction to the subjects involved, and the current state of theoretical thought on causality and treatment. (F)

SYP 3530 Delinquency (3). An analysis of behavior which is extralegal, with major concentration on its appearance among young people (juveniles) and society's response. Particular emphasis is given to the dynamic thrusts being made in establishing juvenile rights as a distinct part of human or civil rights. (S)

SYP 3750 Sociology of Life Course (3). Introduction to the study of the life course from a sociological perspective. Life stages (birth to death) are examined as social constructions.

SYP 4321 Mass Culture (3). Analysis of the social, political, and cultural impact of mass communications. (S)

SYP 4410 Social Conflict (3). The study of conflict in society and its place in social relationships. A study of causes and resolutions, with particular emphasis on methods of resolution and their influence on social change. (F)

SYP 4421 Science, Technology and Society (3). An introduction to the social, cultural, and political changes associated with the development of science and technology. Topics may include structural inequalities associated with differences in access to science and technology; ethical debates related to scientific and technological advances; and the relationship between technology and changing forms of communication, community, and social action. (S)

SYP 4441 Sociology of World Development (3). An examination of the various theories concerning what is happening in the 'under-developed world.' The political, social, and economic events of these societies are subjected to sociological analysis.

SYP 4454 Globalization and Society (3). Examines the economic, political and social dimensions of globalization and the theories used to describe and account for globalization. Course material may focus on particular world regions and comparisons between or among world regions. Prerequisites: ANT 2000 or SYG 2000.

SYP 4460 Sociology of Disasters (3). Study of human response to disaster events, including political and economic factors influencing vulnerability. Examines how individuals and institutions make decisions at all levels of disaster response.

SYP 4562 Domestic Violence (3). Applies sociological perspectives to the topic of domestic violence. Analyzes cultural roots and social structures that promote and reinforce violence in intimate relationships. Prerequisites: SYG 2000 or ANT 2000. (F)

SYP 4600 Sociology of Art and Literature (3). This course approaches the question of art and society through an analysis of: the social production of art; the relationship between imagination and society; the role of the artist; and the ideological impact of aesthetic theory.

SYP 4601 Symbols and Society (3). An analysis of the effect of culture on the individual and on society. The roles of popular and intellectual culture will be examined.

SYP 4730 Sociology of Aging (3). The social impact of aging on individual and group interaction patterns, particularly in the areas of retirement, family relations, community participation, and social services. Explores the major sociological theories of aging in light of current research. (F)

SYP 4740 Sociology of Death (3). An introduction to 'death' as social phenomenon. Attention given to various approaches which systematically study death, with primary emphasis given to the sociological approach. Major attention is given to an exploration of attitudes toward death, and an assessment of the implications for the respective groups involved.

Statistics

Sneh Gulati, *Professor and Chairperson*
Dongmei An, *Instructor*
Leonid Bekker, *Instructor*
Zhenmin Chen, *Associate Professor and Graduate Program Director*
Florence George, *Assistant Professor*
Gauri L. Ghai, *Associate Professor and Advisor*
Ramon Gomez, *Instructor*
Golam Kibria, *Associate Professor*
Dane McGuckian, *Instructor*
Jie Mi, *Professor*
Laura Reisert, *Instructor*
Dinesh Sharma, *Assistant Professor*
Hassan Zahedi-Jasbi, *Associate Professor*

Bachelor of Science in Statistics

Degree Program Hours: 120

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Common Prerequisites

COP 2210	Programming I
	or
CGS 2423	C for Engineers
MAC 2311	Calculus I
MAC 2312	Calculus II
One of the following:	
BSC 1010	General Biology I
BSC 1010L	General Biology Lab I
BSC 1011	General Biology II
BSC 1011L	General Biology Lab II
BSC 2023	Human Biology
BSC 2023L	Human Biology Lab
CHM 1032	Chemistry & Society
CHM 1032L	Chemistry & Society Lab
CHM 1033	Survey of Chemistry
CHM 1033L	Survey of Chemistry Lab
CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
CHM 1046	General Chemistry II
CHM 1046L	General Chemistry Lab II
PHY 2048	Physics with Calculus I
PHY 2048L	General Physics Lab I
PHY 2049	Physics with Calculus II
PHY 2049L	General Physics Lab II
Courses required for the degree:	
MAC 2313	Multivariable Calculus
MAS 3105	Linear Algebra

Upper Division Program

Required Courses: (33)

STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3
STA 3951	Oral Presentations in Statistics	0
STA 4321	Introduction to Mathematical Statistics I	3
STA 4322	Introduction to Mathematical Statistics II	3
STA 4202	Introduction to Design of Experiments	3
STA 4234	Introduction to Regression Analysis	3
STA 4664	Statistical Quality Control	3
ENC 3211	Report & Technical Writing	3

Six additional credit hours of approved statistics courses 6
Three additional credit hours in an approved statistics, mathematics, or computer science course 3
A grade of 'C' or higher in each of these courses is necessary for the major.

Electives
The balance of the 120 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.
Remarks: The student must consult his or her advisor to determine which courses, in addition to the required courses listed above, satisfy the requirements for a statistics major. The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a statistics major: MAC 2233, STA 1013, STA 2023, STA 3033, STA 3111, STA 3112, STA 2122, STA 3123, STA 3145 and QMB 3200 (College of Business Administration).

Combined Bachelor's/Master's Degree in Statistics

Admission Requirements

- Current enrollment in the first semester of the senior year Bachelor's Degree Program in Statistics at FIU
- Completed or enrolled in at least 90 undergraduate credits hours
- Current GPA of 3.25 of higher
- GRE combined score of at least 1000 (quantitative and verbal)

Courses and other General Reqirements

Students enrolled in the program may count up to 9 hours as credits for both the undergraduate and graduate degree programs. These courses must be taken at least the 5000 level and can be chosen from the following list (amongst others):

STA 5206	Design of Experiments I
STA 5236	Regression Analysis
STA 5507	Nonparametic Methods
STA 5666	Advanced Quality Control
STA 5207	Topics in Design of Experiments
STA 7707	Multivariate Methods I
STA 7708	Multivariate Methods II

Students who count cross listed courses towards the degree will not get credit for both the 4000 level and the 5000 level course. Infact, the students will not be allowed to take both the courses.

In addition, as part of earning the MS degree the students are required to take the following core courses:

STA 6244	Data Analysis I
STA 6247	Data Analysis II
STA 6326	Mathematical Statistics I
STA 6327	Mathematical Statistics II

The BS/MS program is designed to be a continuous program; however, upon completion of all the requirements of the undergraduate degree, students will receive the BS degree. Students in this program have up to one year after receipt of the bachelor's degree to complete the MS degree. Students who fail to meet the post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate

programs as any other student but will not be able to use the 9 credits for both the bachelor's and master's degree.

Admission into the combined program does not automatically qualify the students for admission into the MS degree program. To enroll in the MS degree program, the students must apply (in their senior year) to the graduate school and meet all graduate admission requirements.

Students enrolled in the program must maintain an overall GPA of 3.0 or higher and must get a minimum grade of "B" in all the core courses. Upon completion of the entire 4+1 program, students must have accumulated a minimum of 30 hours of credits at the graduate (5000+) level. In addition, to get the MS degree, the students will also be required to take a comprehensive examination or do a thesis. Students opting for the comprehensive exam will be required to take an additional 6 hours of credits at the graduate (5000+) level. All students enrolled in the program will be expected to attend the departmental seminars.

Minor in Statistics

Lower or Upper Division Preparation: (3 or 4)

MAC 2312	Calculus II	4
	or	
STA 2023	Statistics for Business and Economics	3
	or	
STA 2122	Introduction to Statistics I	3
	or	
STA 3111	Statistics I	3

Upper Division Program: (12)

Required Courses

STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3

Two additional courses from the following list:

STA 3033	Introduction to Probability and Statistics for CS	3
	or	
STA 4321	Introduction to Mathematical Statistics I[1]	3
STA 4322	Introduction to Mathematical Statistics II	3
STA 4202	Introduction to Design of Experiments	3
STA 4234	Introduction to Regression Analysis	3
STA 4502	Introduction to Nonparametric Methods	3
STA 4664	Statistical Quality Control	3

[1]STA 4321 has MAC 2313 as a prerequisite.

A grade of 'C' or higher in each of these courses is necessary for the minor.

Remarks: No courses in statistics, mathematics or computer sciences can be applied to more than one minor in these disciplines, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a course is required for both a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

Certificate Program in Actuarial Studies

See section on certificate programs under College of Arts and Sciences.

Course Description

Definition of Prefixes

MAP - Mathematics, Applied; STA - Statistics.

MAP 5117 Mathematical and Statistical Modeling (3). Study of ecological, probabilistic, and various statistical models. Prerequisites: COP 2210, MAC 2313, MAS 3105; and STA 3033 or STA 3164 or STA 4322.

STA 1013 Statistics for Social Services (3). This is an elementary course in statistics, covering graphical and numerical condensation of data as well as the most basic parametric and non-parametric methods. Emphasis is placed on the interpretation of statistical results, rather than on ways to analyze experimental data. Prerequisite: High school algebra.

STA 1061 Introduction to SPSSX for Data Analysis (1). Data coding and entry for use on the mainframe. How to input data, create variables, select subsets of data. Use procedures such as: LIST, FREQUENCIES, CROSS-TABS, DESCRIPTIVES, MEANS and CORRELATIONS. Prerequisite: A course in statistics.

STA 1062 Introduction to SAS for Data Analysis (1). Data coding for entry use on the mainframe. SAS Data step to input data, create variables, select subsets of data, PROCs such as: PRINT, FORMAT, MEANS, FREQ, SUMMARY, TEST, CORR, UNI-VARIATE and PLOT. Prerequisite: A course in statistics.

STA 2023 Statistics for Business and Economics (3). Starting with an introduction to probability, the course provides an introduction to statistical techniques used in management science. It includes descriptive statistics, probability distributions, estimation and testing of hypotheses. Subsequent credit for STA 2122 or STA 3111 will not be granted. Prerequisite: High school algebra. (F,S,SS)

STA 2122 Introduction to Statistics I (3). A course in descriptive and inferential statistics. Topics include: probability distribution of discrete and continuous random variables. Sampling distributions. Large sample estimation and hypothesis testing for means and proportions. Prerequisite: High school algebra. (F,S,SS)

STA 3033 Introduction to Probability and Statistics for CS (3). Basic probability laws, probability distributions, basic sampling theory, point and interval estimation, tests of hypotheses, regression and correlation. Prerequisite: MAC 2312. (F,S,SS)

STA 3060L Statistics Laboratory (1). A laboratory course designed to illustrate important statistical concepts through experiments. Data are analyzed using statistical software packages. Prerequisite or Corequisite: A statistics course.

STA 3111 Statistics I (3). Descriptive statistics. Basic probability rules. Discrete and continuous probability distributions. Point and interval estimation, hypothesis testing based on a single sample. Comparison of two proportions using independent and large samples. Subsequent credit for STA 2122 or STA 2023 will not be granted. Prerequisite: High school algebra. (F,S,SS)

STA 3112 Statistics II (3). Estimation and hypothesis testing based on two samples. Analysis of Variance. Simple linear regression. Linear correlation. Analysis of categorial data. Non-parametric methods. Use of statistical

software packages. Subsequent credit for STA 3123 will not be granted. Prerequisite: STA 3111. (F,S,SS)

STA 3123 Introduction to Statistics II (4). Small sample statistical inference for means and variances. T, chi-square and F distributions. Analysis of variance, regression, correlation, basic nonparametric tests, goodness of fit tests and tests of independence. Prerequisites: STA 2122 or equivalent. (F,S,SS)

STA 3145 Statistics for the Health Professions (3). Statistical analysis with applications in the health sciences. Binomial and normal distributions. Inferences about means and proportions. Regression, correlation, goodness of fit tests. Prerequisite: High school algebra. (F,S,SS)

STA 3163-STA 3164 Statistical Methods I and II (3-3). This course presents tools for the analysis of data. Specific topics include: use of normal distribution, tests of means, variances and proportions; the analysis of variance and covariance (including contrasts and components of variance models), regression, correlation, sequential analysis, and non-parametric analysis. Prerequisites: A course in statistics, or MAC 2312, or high school equivalent. (F,S)

STA 3905 Independent Study (1-6). Individual conferences, assigned readings, and reports on independent investigations.

STA 3930 Special Topics (1-6). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

STA 3949 Cooperative Education in Statistics (1-3). One semester of either part-time or full-time work in an outside organization. Limited to students admitted to the Co-op program. A written report and supervisor evaluation are required of each student. Prerequisites: 2 courses in statistics and permission of Chairperson.

STA 3951 Oral Presentations in Statistics (0). Students are required to communicate orally all stages of a simple statistical analysis through a formal presentation in front of a group of faculty and students. Prerequisites: ENC 3211 and STA 3164 or equivalent. (F,S,SS)

STA 4102 Introduction to Statistical Computing (3). Data manipulation and statistical procedures using popular software, simulation, and statistical algorithms. Prerequisites: STA 3112 or STA 3123 or STA 3164, and COP 2210.

STA 4173-HSC 4510 Statistical Applications in Health Care (3). A course in descriptive and inferential statistics for the Health Services. Topics include probability distributions, point and interval estimation, hypothesis testing, regression and correlation, and contingency table analysis. Prerequisites: STA 1013 or equivalent college mathematics course.

STA 4182 Statistical Models (3). This is a specialized course in the use of statistical models to represent physical and social phenomena. The emphasis is on providing tools which will allow a researcher or analyst to gain some insight into phenomena being studied. An introductory knowledge of probability theory and random variables is assumed. Specific topics include: introduction to discrete and continuous probability distributions, transformation of variables, approximation of data by empirical distributions, central limit theorem, propagation of moments, Monte Carlo simulation, probability plotting, testing distributional assumptions. Prerequisites: STA 3033 or STA 4321.

STA 4202 Introduction to Design of Experiments (3). Completely randomized, randomized block, Latin square, factorial, nested and related designs. Multiple comparisons. Credit will not be given for both STA 4202 and STA 5206. Prerequisites: STA 3163 or STA 3112 or STA 3123 or STA 4322.

STA 4321-STA 4322 Introduction to Mathematical Statistics I and II (3-3). This course presents an introduction to the mathematics underlying the concepts of statistical analysis. It is based on a solid grounding in probability theory, and requires a knowledge of single and multivariable calculus. Specific topics include the following: basic probability concepts, random variables, probability densities, expectations, moment generating functions, sampling distributions, decision theory, estimation, hypothesis testing (parametric and non-parametric), regression, analysis of variance, and design of experiments. Prerequisite: MAC 2313. (F,S)

STA 4234 Introduction to Regression Analysis (3). Multiple and polynomial regression, residual analysis, model identification and other related topics. Credit will not be given for both STA 4234 and STA 5236. Prerequisites: STA 3112 or STA 3123 or STA 3164.

STA 4502 Introduction to Non-parametric Methods (3). Sign, Mann-Whitney U, Wilcoxon signed rank, Kruskal-Wallis, Friedman and other distribution-free tests. Rank correlation, contingency tables and other related topics. Credit for both STA 4502 and STA 5507 will not be granted. Prerequisite: A course in statistics.

STA 4664 Statistical Quality Control (3). This course presents the simple but powerful statistical techniques employed by industry to improve product quality and to reduce the cost of scrap. The course includes the use and construction of control charts (means, percentages, number defectives, ranges) and acceptance sampling plans (single and double). Standard sampling techniques such as MIL STD plans will be reviewed. Prerequisite: A course in statistics.

STA 4905 Independent Study (1-6). Individual conferences, assigned readings, and reports on independent investigations.

STA 4930 Special Topics (1-6). Designed to give students an opportunity to pursue special studies not otherwise offered. May be repeated.

STA 4949 Cooperative Education in Statistics (1-3). One semester of either part-time or full-time work, in an outside organization. Limited to students admitted to the Co-op program. A written report and supervisor evaluation are required of each student. Prerequisites: STA 3164, STA 4322 and permission of Chairperson.

STA 5105L SPSS Data Analysis Lab (1). Topics include: Entering data from various sources, data checking, descriptive statistics, graphing data, crosstabulations, t-tests, correlation and regression, ANOVA, and reliability. Prerequisites: A statistics course or concurrent enrollment in a statistics course, and graduate standing or permission of the instructor. (F,S,SS)

STA 5106 Intermediate Statistics I (3). Power, measures of assoc., measurement, ANOVA: one-way and factorial, between and within subjects expected mean squares, planned comparisons, a-priori contrasts, fixed, random, mixed models. This course may be of particular interest to behavioral sciences. Prerequisites: STA 3111 or STA 3123 or STA 3033; and graduate standing. (F)

STA 5107 Intermediate Statistics II (3). Correlation and regression both simple and multiple, general linear model, analysis of covariance, analysis of nominal data, analysis of categorical data. This course may be of particular interest to behavioral sciences. Prerequisite: Permission of the instructor. (S)

STA 5126-PSY 5206 Fundamentals of Design of Experiments (3). CRD and RCB designs. Latin square designs. Factorial, nested and nested-factorial experiments. Fixed, random and mixed models. Split-plot designs. Covariance analysis. Prerequisites: STA 3112 or STA 3123 or STA 3163 or STA 4322 or equivalent.

STA 5206 Design of Experiments I (3). Design and analysis of completely randomized block, Latin square factorial, nested experiments. Multiple comparisons. Credit for only one of three STA 4202, STA 5126, and STA 5206 courses will be granted. Prerequisites: STA 3033 or STA 3164 or STA 4322 or (STA 3163 and STA 4321).

STA 5207 Topics in Design of Experiments (3). This applied course in design of experiments covers topics such as split-plot design, confounding, fractional replication, incomplete block designs, and response surface designs. Prerequisite: STA 5206.

STA 5236 Regression Analysis (3). Simple, multiple and polynomial regression, analysis of residuals, model building and other related topics. Credit for both STA 4234 and STA 5236 will not be granted. Prerequisites: STA 3112 or STA 3123 or STA 3164, or STA 6167.

STA 5446-STA 5447 Probability Theory I and II (3-3). This course is designed to acquaint the student with the basic fundamentals of probability theory. It reviews the basic foundations of probability theory, covering such topics as discrete probability spaces, random walk, Markov Chains (transition matrix and ergodic properties), strong laws of probability, convergence theorems, and law of iterated logarithm. Prerequisite: MAC 2313.

STA 5507 Nonparametric Methods (3). Distribution-free tests: sign, Mann-Whitney U, Wilcoxon signed rank, Kruskal-Wallis, Friedman, etc. Rank correlation, contingency tables and other related topics. Credit for both STA 4502 and STA 5507 will not be granted. Prerequisite: A course in statistics.

STA 5666 Advanced Statistical Quality Control (3). Review of statistical methods useful in quality improvement. Statistical process control. Taguchi's and Deming's philosophies. Control charts. Process capability analysis. Acceptance sampling plans. Prerequisities: STA 3033 or STA 3163 or STA 4321 or equivalent.

STA 5676 Reliability Engineering (3). The course material is designed to give the student a basic understanding of the statistical and mathematical techniques which are used in engineering reliability analysis. A review will be made of the basic fundamental statistical techniques required. Subjects covered include: distributions used in reliability (exponential, binomial, extreme value, etc.); tests of hypotheses of failure rates; prediction of component reliability; system reliability prediction; and reliability apportionment. Prerequisite: STA 4322.

STA 5800 Stochastic Processes for Engineers (3). Probability and conditional probability distributions of a random variable, bivariate probability distributions, multiple random variables, stationary processes, Poisson and normal processes. Prerequisites: MAC 2313, MAP 2302, STA 3033.

STA 5826 Stochastic Processes (3). This course is intended to provide the student with the basic concepts of stochastic processes, and the use of such techniques in the analysis of systems. Subjects include: Markov Processes, queuing theory, renewal processes, birth and death processes, Poisson and Normal processes. Applications to system reliability analysis, behavioral science, and natural sciences will be stressed. Prerequisite: STA 5447.

STA 5906 Independent Study (1-6). Individual conferences, assigned reading, and reports on independent investigation.

Women's Studies

Core Faculty:
Suzanna Rose, *Director, Women's Studies and Professor of Psychology*
Aurora Morcillo, *Associate Director & Associate Professor of Women's Studies/History*
Vrushali Patil, *Assistant Professor, Women's Studies/Sociology*
Beverly Yuen Thompson, *Visiting Assistant Professor, Women's Studies*

Affiliated Faculty:
Dawn Addy, *Center for Labor Research and Studies*
Irma de Alonso, *Economics*
Heather Andrade, *English*
Clair Apodaca, *International Relations*
Lynne Barrett, *English*
Pascale Becel, *Modern Languages*
Michelle Beer, *Philosophy*
Ana Bidegain, *Religious Studies*
Carole Boyce Davies, *African-New World Studies*
Carol Damian, *Art and Art History*
Jennifer Desiderio, *English*
Joyce Elam, *Dean, Business Administration*
Rebecca Friedman, *History*
Maria Asuncion Gomez, *Modern Languages*
Divina Grossman, *Dean, Nursing*
Christine Gudorf, *Religious Studies*
Kimberly Harrison, *English*
Marilyn Hoder-Salmon, *English*
Vanessa Hudson, *International Relations*
Valerie Johnsen, *Honors College*
Tara Kai, *English*
Suzanne Koptur, *Biological Sciences*
Lara Kriegel, *History*
Abe Lavender, *Sociology/Anthropology*
Felice Lifshitz, *History*
Ana Luszczynska, *English*
Sarah Mahler, *Sociology/Anthropology*
Peggy Maisel, *Law*
Kathleen Martin, *Sociology/Anthropology*
Kathleen McCormack, *English*
Marilyn Montgomery, *Psychology*
Aisha Musa, *Religious Studies*
Laura Nenzi, *History*
Suzanne Onorato, *Women's Center*
Bennie Osborne, *Management*
Valerie Patterson, *Public Administration*
Joyce Peterson, *History*
Mary Lou Pfeiffer, *Honors College*
Elisabeth Prugl, *International Relations*
Ana Roca, *Modern Languages*
Meri-Jane Rochelson, *English*
Rebecca Salokar, *Political Science*
Ellen Sprechman, *English*
Dionne Stephens, *Psychology*
Judith Stiehm, *Political Science*
James Sutton, *English*
Tami Thomas, *Nursing*
Nan Van Den Bergh, *Social Work*
Gisela Vega, *Student Affairs*
Charlyne Walker, *College of Arts and Sciences*
Ophelia Weeks, *Biology*
Donna Weir-Soley, *English*
Barbara Weitz, *English*
Lois West, *Sociology/Anthropology*
Kirsten Wood, *History*

Bachelor of Arts in Women's Studies

This major provides an opportunity to study the historical, political, economic, literary, social, and cultural roles of women and of the function of gender in diverse societies and cultures. The courses are coordinated by the Women's Studies Center, and are open to women and men alike. This field of study explores bias throughout society- in the workplace, in school, and at home. Equal importance is given to the commitment to discover and teach ideas and knowledge about global concerns, nationality, race, ethnicity, class, age, and sexual orientation. Students may formulate a program of study consonant with their interests and goals. The major is an excellent preparation for graduate study in most fields and for careers in both the public and private sectors. A background in women's studies develops critical skills and offers new knowledge to meet the challenges of alterations in society and of expanding opportunities.

All students entering the major program in Spring 2004 will have to fulfill the requirements for the new core concentration. All students admitted as majors before the Spring 2004 semester will need to fulfill the old core concentration requirements.

For further information and/or to seek academic advising for the women's studies major, visit the Women's Studies Center in DM-212 or call (305) 348-2408 or send email to: wstudies@fiu.edu. At Biscayne Bay Campus, students may inquire at ACI 318 or call (305) 919-5859. We welcome your inquiry.

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST or its equivalent, completed 60 semester hours, and be otherwise acceptable into the program.

Upper Division Program

The major requires 30 hours of upper division course work. Students who elect to major in women's studies are required to declare a minor in another area of concentration (courses may overlap). Students who choose to declare a double major are exempt from the minor requirement. The major requires a core concentration of four courses and six electives for a total of 10 courses. Any core concentration course that is not taken for the core requirement may be taken as an elective. Refer to full course descriptions in the appropriate departmental listings of this catalog.

All students entering the major in Fall 2000 or later must take one course in the major that develops computer competency and one that develops oral competency. Courses that fulfill these requirements will be noted in each semester's Women's Studies course flyer. These courses will constitute part of the 30-credit requirement, and they may be core courses or electives.

Genre and topic courses are offered regularly and new courses are periodically added to the curriculum. The elective selection may include one course on ethnicity, class or race that is not specifically a women's studies course. Student programs are coordinated with designated faculty advisors. The program also offers an academic certificate in women's studies. For further information refer

to the certificate page at the end of the College of Arts and Sciences section.

Upper Division Requirements

Core Concentration: (Four courses; twelve hours/one course from each of the following four categories)

I.		
WST 3015	Introduction to Women's Studies	3
	or	
WST3641/IDS4920	Gay and Lesbian in the US	3
	or	
PHM 4123	Philosophy and Feminism	3
II.		
SOP 3742	Psychology of Women	3
	or	
SYD 3810	Sociology of Gender	3
	or	
ECS 3021	Women Culture and Economic Development	3
III.		
ANT 3302	Anthropology of Sex and Gender	3
	or	
AMH 3560	History of Women in the U.S.	3
	or	
EUH 4313	History of Modern Spain from a Gender Perspective	3
IV.		
REL 3145	Women and Religion	3
	or	
LIT 3383	Women in Literature *(or any English elective listed below)*	3
	or	
WST 4504	Feminist Theory	3

Electives in Women's Studies

(Six courses: 18 hours; all are 3 credit hours)

Women's Studies:

WST 3015	Introduction to Women's Studies
WST 3641	Gay and Lesbian in the U.S.
WST 4504	Feminist Theory
WST 4905	Independent Study
WST 4930	Special Topics
WST 4940	Internship
WST 5946	Internship
WST 5905	Independent Study
WST 5935	Special Topics

African New World Studies:

AFA 4930/5002	Theory & Methods in ANWS

Art and Art History:

ARH 4871/5872	Women and Art

Economics:

ECS 3021	Women, Culture and Economic Development

English:

AML 3415	Am. Lit. & Tradition of Dissent: Rehearsing Feminism
AML 4024	Studies in 20C Af. Am. Lit.: 20th Century African Amer. Lit.
AML 4300/5305	Maj. Am. Lit. Fig.: Cather, Chopin, Wharton
AML 4503	Periods in American Literature: Women Transforming Realism
AML 4503	Per. In Am. Lit.: Literature of the Harlem Renaissance
AML 4624/5305	African-American Women Writers
AML 4930/5505	Sp. Top. In Am. Lit.: War and the 19th Century American Heroine
ENC 4930	Sp. Top. In Comp: Women Who Disrupt, Resist, Question the Status Quo
ENG 4132	Studies in Film: Women and Film of the African Diaspora
ENL 3261	19th Century British Women Novelists
ENL 4212	Medieval Women Writers
ENL 4251	Victorian Literature
ENL 4254/5505	Late Victorian Fiction
ENL 4370	Virginia Woolf and Her Circle
ENL 5220	Maj. Brit. Lit. Fig.: Sensation Writers: W. Collins & M. Braddon
LIN 4651	Gender and Language
LIT 3170	Jewish Literature: Fiction of the Jewish Immigrant Experience
LIT 3383	Women in Literature
LIT 3384	Caribbean Women Writers
LIT 3930	Sp. Topics: Women of the African Diaspora
LIT 4001	Modern Poetry-Plath & Rich
LIT 4351	Major Af. Writers: African Fiction and Film: Women's Voices
LIT 4382	Women in East Europe
LIT 4930	Special Topics: Queen Elizabeth and Her Representations
LIT 4931	Special Topics in Women's Literature
LIT 5934	Spec Topic: Women Writers of the African Diaspora

History:

AMH 3560	History of Women in the United States
AMH 4561	Early American Women's History
AMH 4562	Modern American Women's History
AMH 4930	Topics in US History: Early American Women's History
AMH 5905	Readings in Am. History: Women and Gender in the U.S.
ASH 4384	History of Women in Asia
EUH 3181	Medieval Culture
EUH 3576	Russian Revolution/Soviet Union: Gender, Politics & Society
EUH 4025	Saints, Relics, & Miracles in Medieval Europe
EUH 4286	Top In Europ. Hist: The Spanish Civil War
EUH 4313/5935	History of Women in Modern Spain
EUH 4610	Women and Gender in Europe, 1750 to Present
EUH 5905	Read. in Europ. Hist: Saints in Europe & the Americas
HIS 4930/5930	Sp. Topics: Totalitarian Regimes & Gender
HIS 4930	Sp. Topics: Women & Gender in Pre-Modern World
HIS 4935	Senior Seminar: Women & Gender in Pre-Modern Europe & Asia
LAH 4721	History of Women in Latin America

Humanities:

HUM 3225	Women, Culture and History
HUM 3930	Female/Male: Women's Studies Seminar
HUM 4491	Russian Revolution/Soviet Union: Gender, Politics & Society

International Relations:

INR 4085	Women & Men in International Relations
INR 5935	Topics in Int. Rel.: Feminisim and International Relations

Labor Studies:

LBS 4154/5155	Workers & Diversity / Workplace Diversity
LBS 4210/5930	Women and Work in the United States

Modern Languages:

FIL 4528	Hispanic Culture: Women & Film
FRW 4583	Women Writers in French
SPW 4390	Genre Studies: The Representation of Women in Spanish Film
SPW 5387	Women and Poetry
SPW 5556	Spanish Realism and Naturalism
SPW 5781	The Representation of Women in Spanish Literature & Film
SPW 5786	Spanish-American Women Writers

Music:

MUH 3073/5075	Women in Music

Philosophy:

PHM 4123	Philosophy and Feminism

Political Science:

POS 4073	Military and the Citizen
POS 4605	Gender Justice and the Courts
POT 4309	Sex, Power, and Politics
POT 5307	Feminist Political Theory
PUP 4323	Women in Politics

Psychology:

CYP 6766	Cross-Cultural Sensitization in a Multicultural Context
PSY 4822	Female Sexuality
PSY 4930	Special Topic: Research Plans & Careers
SOP 3742	Psychology of Women

Religion:

REL 3145/5145	Women and Religion
REL 3171	Sex and Religion
REL 3520/5502	Saints, Witches and Cathedrals
REL 4146	Feminist Theology and Ethics
REL 5184	Sex, Ethics and Religion

Sociology/Anthropology:

ANT 3302	Anthropology of Sex and Gender
ANT 3304	Voices of Third World Women
ANT 4334	Contemporary Latin American Women
SYD 3810/6325	Sociology of Gender
SYD 4820	Sociology of Men
SYG 4060	Sociology of Sexuality
SYO 3120	Marriage and the Family
SYP 4562	Domestic Violence

Public Administration

PAD 5435	Administration & the Role of Women

Architecture:

ARC 4227	Gender and Architecture

Business:

MAN 4102	Managing Diversity

Criminal Justice:

CCJ 4663	Women, Crime, and the Criminal Justice System

Social Work:

SOW 5109	Crises in the Lives of Women

Course Descriptions

Definition of Prefixes

WST – Women's Studies

WST 3015 Introduction to Women's Studies (3). Considers the interdisciplinary study of women in today's world. Focuses on women through the life course and examines the debates on women's studies in the university.

WST 3641 Gay and Lesbian in the United States (3). An interdisciplinary examination of contemporary issues facing gays and lesbians in the United States. Topics include a review of significant events in the gay/lesbian movement; political and legal considerations; and social/cultural contributions.

WST 4504 Feminist Theory (3). This course explores how women are viewed theoretically across the social sciences and humanities. Topics such as multiculturism, cross-nationalism and post-modernism are addressed.

WST 4905 Independent Study (1-3). Supervised readings course designed for advanced students who wish to pursue specialized topics in women's studies. Arrangements must be made with faculty member during prior semester. Prerequisite: Permission of the instructor.

WST 4930 Special Topics (3). Selected topics in Women's Studies. Subject of course varies with instructor. Prerequisites: One women's studies course or permission of the instructor.

WST 4931 Women in Leadership (3). Examines the foundation for theoretical leadership models and provides a forum for students to examine their own leadership style. Corequisite: WST 3015.

WST 4940 Women's Studies Internship (1-3). Supervised work experience in organization agency or business focused on women and/or girls. Prerequisites: One women's studies course and permission of the director.

WST 5507 Feminist Theory (3). Theories, issues and major paradigms underlying feminist scholarship. Development of women's studies as a discipline. Emphasis on multicultural approaches and perspectives. Prerequisites: One WST course or permission of the instructor.

WST 5905 Independent Study (1-3). Supervised readings course designed for advanced and graduate students who wish to pursue specialized topics in women's studies. Arrangements must be made with faculty member during prior semester. Prerequisite: Permission of the instructor.

WST 5935 Special Topics (3). Selected topics in women's studies. Subject of course varies with instructor. Prerequisites: One women's studies course or permission of the instructor.

WST 5946 Women's Studies Internship (1-3). Supervised work experience in organization, agency, or business focused on women and/or girls. Prerequisites: BA in women's studies or other discipline and permission from the Women's Studies director.

Certificate Programs

Certificates

Certificate Programs are structured combinations of courses with a common base of interest from one or more disciplines into an area of concentration.

Successful completion of a Certificate Program is entered on the student's transcript and records. Two types of certificates are awarded:

Academic Certificate

Awarded by an academic unit to a student at the time of awarding a bachelor's degree; or upon completion of the appropriate coursework to a student who already has a bachelor's degree.

An academic certificate shall not be awarded to a student who does not possess either a bachelor's degree or does not complete a bachelor's degree program. An academic certificate, to the greatest extent possible, is to be interdisciplinary in nature.

Professional Certificate

Awarded by an academic unit to an individual who completes the appropriate coursework in the area of concentration. The professional certificate does not need to be interdisciplinary or associated with a degree program.

For details and course requirements, refer to the appropriate certificate director or academic department.

Academic Certificates in:

Actuarial Studies
African Studies
African-New World Studies
Agroecology
American Studies
Ancient Mediterranean Civilization
Asian Studies
Asian Globalization and Latin America Studies
Chinese Studies
Comparative Immunology
Cuban and Cuban-American Studies
Environmental Studies
Ethnic Studies
European Studies
Film Studies
Forensic Science
Gerontological Studies
Japanese Studies
Judaic Studies
Labor Studies
Latin American and Caribbean Studies
Law, Ethics and Society
Linguistic Studies
National Security Studies
Pre-Modern Cultures
Public Policy Studies
Women's Studies

Professional Certificates in:

Legal Translation and Court Interpreting
Portuguese Interpretation Studies
Portuguese Translation Studies
Professional Language
Translation Studies

Certificate Program in Actuarial Studies

Coordinating Committee
Hassan Zahedi, *Director, Statistics*
Julian Edward, *Mathematics*
Steve Hudson, *Mathematics*

The Certificate in Actuarial Studies is designed to provide a focus for those students who are interested in pursuing a career in the actuarial sciences. The primary emphasis of the Certificate program is on the mathematical and statistical background that forms the foundation of the work in this area.

The program is most obviously suitable for those students who are majoring in Mathematics or Statistics. It would also be valuable for those who wish eventually to enter the actuarial field, but choose to major in an allied discipline, such as Business or Computer Science. In addition, it allows access to persons in the community who are currently working in this area and wish to develop or upgrade their skills.

Upon completion of the following requirements, a student may apply for the Certificate in Actuarial Studies. The Certificate will be awarded at the time of awarding a Bachelor's degree, or upon completion of this work if the student already has a Bachelor's degree.

Statistics and Mathematics Required Courses: (20)

a) MAC 2311	Calculus I	4
b) MAC 2312	Calculus II	4
c) MAC 2313	Calculus III	4
d) MAS 3105	Linear Algebra	3
e) MAT 3930	Special Topics- Mathematics	1
f) STA 4321	Mathematical Statistics I	3
g)STA 3930	Special Topics-Statistics	1

Four options from the following list: (12)

a) STA 4322	Mathematical Statistics II	3
b) MAD 3401	Numerical Analysis	3
	or	
MAD 5405	Numerical Methods	3
c) STA 4603	Mathematical Techniques of Operations Research	3
	or	
MAP 5236	Operations Research	3
d) STA 4234	Introduction to Regression Analysis	3
	or	
STA 5236	Regression Analysis	3
e) ECO 2013	Principles of Macro-Economics	3
f) ECO 2023	Principles of Micro-Economics	3
g) ECO 4237	Money, Interest, and Capital	3
h) ACG 2021	Accounting for Decisions	3
i) ACG 3024	Accounting for Managers and Investors	3
j) FIN 3403	Financial Management	3
k) COP 2210	Introduction to Programming	3
	or	
COP 3337	Intermediate Programming	3

An overall average of 'B' (3.0 GPA) or better in the 32 semester-hours of coursework listed above, with a grade of 'C' or better in each course. A minimum of 12 of these semester-hours must be earned in courses taken at the University.

African-New World Studies

Akin Ogundiran, *Director, African-New World Studies & Associate Professor, History*

Faculty:

Heather Andrade, *Assistant Professor, English*
Pascale Becel, *Chair and Associate Professor, Modern Languages*
Jean-Robert Cadely, *Associate Professor, Modern Languages & African-New World Studies*
John Clark, *Chair & Associate Professor, International Relations*
Carole Boyce Davies, *Professor of English & African-New World Studies*
Mohamed Farouk, *Associate Professor, College of Education*
Steve Fjellman, *Professor, Sociology & Anthropology*
Veronique Helenon, *Assistant Professor, History & African-New World Studies*
Tometro Hopkins, *Associate Professor, English*
Marcia Magnus, *Associate Professor, Dietetics & Nutrition*
Andrea Mantell-Seidel, *Associate Professor, Theater & Dance*
Roderick Paul Neumann, *Professor, International Relations*
Valerie Patterson, *Assistant Professor, College of Urban & Public Affairs*
Jean Rahier, *Associate Professor, Sociology/ Anthropology & African-New World Studies*
Vicky Silvera, *Head, Special Collection, Library*
Augusto Soledade, *Assistant Professor, Dance*
Linda Spears-Bunton, *Associate Professor, College of Education*
Dionne Stephens, *Associate Chair & Assistant Professor, Psychology*
Alex Stepick III, *Professor, Sociology & Anthropology*
Juan Torres-Pou, *Assistant Professor, Modern Languages*
Albert Wuaku, *Certificate Coordinator & Assistant Professor, Religious Studies*
Donna Weir-Soley, *Assistant Professor, English*

African-New World Studies is the study, research, interpretation and the dissemination of knowledge concerning African peoples internationally. Housed within the College of Arts and Sciences, the African-New World Studies Certificate Program provides students with an interdisciplinary approach to the study of the global, economic, cultural, and historical experiences of people of African descent. The Certificates complement students' work in their major fields of study on the undergraduate level while fostering greater understanding of traditionally marginalized topics. African New World Studies offers two certificates:

1. ***Certificate in African New World Studies***
2. ***Certificate in African Studies***

Certificate in African-New World Studies

General Requirements (15)

Students complete 15 credit hours of study from disciplines as diverse as dance, geography, history, international relations, journalism, sociology, anthropology, literature, music and political science. The core requirement is AFA 2000 (African Worlds – Introduction). This required course should be taken at the start of the Certificate Program. The other 12 hours must come from each of two lists, one comprising the Arts and Humanities, and the other the Social Sciences. The program director may approve other courses upon request. Students requesting an exception must present a syllabus for the course they would like to enroll in.

Required Core Courses (3)

AFA 2000	African Worlds - Introduction	3

Arts and Humanities Courses (3-9 credits)

AFH 4100	History of Africa I
AFH 4200	History of Africa II
AFH 4405	History of East Africa
AFH 4450	History of South Africa
AMH 4570	African-American History
AMH 4571	African American History from the 17th to the late 19th Centuries
AMH 4573	African-American History from the late 19th Century to the Present
AML 2602	African-American Literautre
AML 4014	Studies in 19th Century African-American Literature
AML 4024	Studies in 20th Century African-American Literature
AML 4624	African American Women Writers
AML 4621	Major African American Writers
DAN 4396	Dance Ethnology
FRW 4750	Francophone Literature of Africa
HAI 3500	Haiti: Language and Culture
LIN 2612	Black English
PHI 3073	African Philosophy
ANT 4353	Representations of Africa and African in Films

We encourage students to enroll in one of the following three dance courses. Only three credit hours (one course) will count towards the fulfillment of the certificate requirements.

DAA 3345	Caribbean Dance
DAA 3346	Haitian Dance
DAA 3347	West African Dance

Social Sciences Courses (3-9 Credits)

ANT 4451	Anthropology of Race and Ethnic Relations
CPO 3320	African Politics
ECO 4321	Radical Political Economy

College of Arts and Sciences

ECS 4433	Economics of the Caribbean
GEA 3600	Population and Geography of Africa
INR 3253	International Relations of Sub-Saharan Africa
INR 4283	International Relations, Development, and the Third World
MMC 4661	Race, Multiculturalism and the Mass Media
REL 3135	African-American Religious Movements
REL 4370	African Religions
SYD 4700	Sociology of Minorities/Race and Ethnic Relations
SYD 4704	Seminar in Ethnicity
SYP 4733	Aging in the Black Community
ANT 4397	African Diaspora Cultures and Performativity

Course Descriptions

AFA 2000 African Worlds-Introduction (3). A core requirement for those considering a certificate or major in African-New World Studies. Key ideas, thinkers, theories, and geographical locations of peoples and culture of the African Diaspora.

AFA 3153 African Civilization, Religion and Philosophy (3). An introductory level overview of Ancient African origins of civilization, Religion and Philosophy.

AFA 4104 Teaching the African-American Experience (3). Teachers Institute which includes literature, culture, history, politics, and the arts designed to meet Florida State Teachers Certification Requirements. Includes instruction on pedagogy, teaching methods and FCAT.

AFA 4930 African-New World Studies: Theory & Methods Seminar (3). Nature, meaning and intent of intellectual productions in Africa and the Diaspora. Examines the works of key thinkers that have made visible some of the submerged or appropriated realities of African peoples.

Certificate in African Studies

Akin Ogundiran, *Director, African-New World Studies & Associate Professor, African History*
Kingsley Banya, *Associate Professor, Education*
Pascale Becel, *Chair & Associate Professor, Modern Languages*
Carole Boyce Davies, *English & African-New World Studies*
John Clark, *Chair & Associate Professor, International Relations*
Mohammed Farouk, *Associate Professor, Education*
Veronique Helenon, *Assistant Professor, History & African-New World Studies*
Kevin Hill, *Associate Professor, Political Science*
Jeremy Levitt, *Associate Professor, College of Law*
Rod Neumann, *Professor, International Relations-Geography Program*
Jean Rahier, *Associate Professor, Sociology & Anthropology & African New World Studies*
Albert Wuaku, *Certificate Coordinator & Assistant Professor, Religious Studies*

The primary goal of the Certificate in Continental African Studies is to enable students to obtain an interdisciplinary concentration in African studies. The mechanism of a certificate provides students with a credential that attests to their sustained scholastic efforts in the area of Continental African studies. The African Studies certificate parallels those in Asian Studies, European Studies, and Latin American Studies in providing students with an opportunity to certify their sustained study of the social affairs and humanities of a particular geographical region. The certificate will require students to take one course in African history as a core subject, and four additional three credit hours divided between the humanities and social sciences.

Prescribed Courses and Other Requirements:
The Certificate requires students to complete 15 credit hours, distributed as follows:

Core Requirements (3 credits)
One of the following two courses:

AFH 4100	History of Africa I	3
or		
AFH 4200	History of Africa II	3

Social Sciences Requirement (3-9 credits)

ANT 4352	African Peoples & Cultures	3
ANT 4353	Representations of Africa and Africans in Film	3
CPO 3204	African Politics	3
GEA 3600	Population & Geography of Africa	3
INR 3252	International Relations of North Africa	3
INR 3253	International Relations of Sub-Saharan Africa	3

Humanities Requirement (3-9 credits)
Students take from one to three 3-credit courses from the following:*

AFA 4930	African-New World Studies: Theory & Methods Seminar	3
AFH 4405	History of East Africa	3
AFH 4450	History of South Africa	3
FRW 4750	Francophone Literature of Africa	3
LIT 4351	Major African Writers	3
PHI 3073	African Philosophy	3
REL 4990	African Religions	3

We encourage students to enroll in the following dance course. Only three credit hours (one course) will count towards the fulfillment of the certificate requirements.

DAA 3347	West African Dance	3

***The program director may approve other courses upon request. Students requesting an exception must present a syllabus for the course in which they would like to enroll.**

Agroecology Certificate Program

Mahadev Bhat, *Chair, Environmental Studies*
Krish Jayachandran, *Environmental Studies*
Assefa Melesse, *Environmental Studies*
Suzanne Koptur, *Biological Sciences*
Gail Hollander, *Internatioanl Relations*

This interdisciplinary program is aimed at providing students with an opportunity to learn problems and issues that emerge from the interface between agriculture, natural ecosystems and urban areas. Students will gain an appreciation of how traditional agricultural production systems will influence the quality of natural ecosystems and human environment, and also what ecological and developmental pressure that agriculture comes under from the human system. The program will emphasize natural and economic services that are provided by large agricultural areas interspersed between urban and natural areas. Students will learn structural changes that are necessary within agriculture in order to make it ecologically sustainable and community supported. The program includes farm- and field-level experiential learning through internships, field demonstrations and minor experiments. This is a collaborative effort between Florida International University, US Department of Agriculture (USDA), Archbold Biological Station's MacArthur Agro-Ecology Research Center (MAERC) and Miami Dade College (MDC).

Prescribed Courses and Other Requirements:
The Agroecology Certificate Program requires successful completion of the following four categories of course work, with a total of 17-18 credit hours:

1. Introductory ecology requirement: Take any one of the following:

PCB 3043+L	Ecology plus Lab	4
EVR 3013+L	Ecology of South Florida	4
Other ecology equivalent with a lab		4

2. Agroecology core requirement:

EVS 4xxx	Sustainable Agriculture	3
EVS 4xxx	Agroecology	3

3. Agricultural internship or problem analysis: Take any one of the following:

EVR 4xxx	Environmental GIS	3
BSC 4914	Student Research Lab	2
BSC 4914	Student Research Lab	2
BSC 3949	Cooperative Education in Biology	2
BSC 4915L	Honors Research	2
EVR 3949/EVR 4949	Cooperative Education in Environmental Studies	2
EVR 4905	Independent Study	2
EVR 4xxx	Cooperative Education	2

As part of the above courses, student must complete a farm-, field- or lab-based internship that may involve working on farms, carrying out agro-ecological field observations, carrying out agricultural science lab experiments, conducting geo-spatial modeling, or conducting agriculture-related socio-economic analysis. Student will produce a report based on the internship experience. Students also will have the option of doing internship or conducting agroecology science experiments at USDA's Agricultural Research Service, Miami and MAERC.

4. General agricultural/environmental science and social studies electives: Take any two of the following:

EVR 4592	Soils and Ecosystems	3
EVR 3010	Introduction to Environmental Science: Energy Flows	3
EVR 3013	Ecology of South Florida	3
EVR 4xxx	Environmental GIS	3
EVR 4869	Environmental Problem Solving	2
EVR 4026	Biotic Resources	3
EVR 4211	Water Resources	3
EVR 4312	Energy Resources	3
EVR 4321	Sustainable Resource Development	3
EVR 4323	Restoration Ecology	3
EVR 4401	Conservation Biology	3
EVR 4352	U.S. Environmental Policy	3
EVR 3415	Population and Environment	3
ECP 3302	Environmental Economics	3
ECP 4314	Natural Resource Economics	3
GEO 3510	Earth Resources	3
GEO 4476	Political Ecology	3
GEO 4354	Geography/Global Food System	3
GLY 3030	Environmental Geology	3
ENY 1004	General Entomology	3
ENY 4060	Advanced Entomology	3
MCB 3010	General Microbiology	3
MCB 3010L	General Microbiology Lab	2
MCB 4603	Microbial Ecology	3
MCB 4653	Food Microbiology	3
OCB 2061	Introductory Genetics	3
PCB 4301	Freshwater Ecology	3
APB 2170	Introductory Microbiology	3
BOT 3014	Plant Life Histories	3
BOT 3153	Local Flora	3
BOT 3663	Tropical Botany	3
BOT 3810	Economic Botany	3
BOT 4503	Plant Physiology	3
BSC 4422	Biotechnology: Applications in Industry, Agriculture and Medicines	3
INR 3043	Population and Society	3
INR 4054	World Resources, World Order	3
INR 4350	International Environmental Politics	3

The Certificate Committee will consider other courses toward the elective requirement on a case-by-case basis. Up to two courses taken at Miami Dade College or other colleges in the relevant areas of agricultural sciences, horticulture, ecology, and environmental sciences will count toward the ecology course requirement and general agricultural/environmental science elective requirement.

American Studies Certificate Program

Darden A. Pyron, *Director, History*

Coordinating Committee
Tucker Arnold, *English*
Howard Rock, *History*
Donald Watson, *English*

The American Studies Certificate Program provides the opportunity for students to examine the nature of American civilization through an interdisciplinary study of American history, literature, culture, and thought. The program provides a grounding in American literature and American history, a sampling of how each discipline approaches the study of American civilization, and an opportunity to follow the approaches of political science, anthropology, philosophy, and religion. Through a seminar in American studies, students will apply the insights of the various disciplines to problems of their own choosing.

The Certificate in American Studies is awarded with a bachelor's degree, or upon completion of Certificate requirements, to a student who already possesses that degree.

General Requirements
A total of seven courses chosen among the prescribed certification courses with a grade of 'C' or higher.

Specific Requirements

AML 2011	Survey of American Literature I	3
AML 2020	Survey of American Literature II	3
Two consecutive semesters chosen from the following:		
AMH 3012	American History 1600-1763	3
AMH 2010	American History, 1607-1850	3
AMH 2020	American History, 1850 to the Present	3
Two electives chosen from the following:		
ANT 3409	Anthropology of Contemporary Society	3
PHH 3700	American Philosophy	3
POT 3204	American Political Thought	3
REL 3100	Religion and Culture	3
An appropriate American Literature course.		
An appropriate American History course.		

Ancient Mediterranean Civilization Certificate Program

Marian Demos, *Director, MOL/Humanities*

Coordinating Committee
Gwyn Davies, *History*
Marian Demos, *Humanities*

Erik Larson, *Religious Studies*
Kate McKinley, *English*
Darden Pyron, *History*
Paul Warren, *Philosophy*

The Ancient Mediterranean Civilization Certificate Program is an eighteen credit-hour course of study intended to enable students to gain an interdisciplinary concentration in various aspects of the Ancient Mediterranean. It is designed to enhance undergraduates' understanding of the ancient Mediterranean region, primarily (but not exclusively), the cultures of Rome, Greece, and Judaea, and to complement the student's major course of study, especially in Anthropology, English, History, Humanities, Philosophy, Religious Studies, and Visual Arts.

Courses are to be chosen from the following list in consultation with the approval of an advisor. A grade of C or better is required for all courses (C- is not acceptable). This listing should be understood as a partial list. Students should consult with an advisor of the certificate program about current course offerings.

1. All students are required to demonstrate ability in at least one Classical Language (Classical or New Testament Greek, Latin, Biblical Hebrew or other ancient language with Director's approval)

Classical Greek		
GRE 1130	Classical Greek I	5
GRE 1131	Classical Greek II	5
New Testament Greek		
GRE 3041	New Testament Greek II	3
GRE 3050	New Testament Greek I	3
Biblical Hebrew		
HBR 3100	Biblical Hebrew I	3
HBR 3101	Biblical Hebrew II	3
Latin		
LAT 1130	Latin I	5
LAT 1131	Latin II	5

2. At least 18 semester hours from the following certificate program course listing, or others approved by the certificate program advisor. Students must take one Foundation course, one course from each of three fields (Culture, History, and Religion) and two courses from any field. A maximum of 5 credits may be applied towards the certificate from language classes (see section 1.)

Foundation Classes	
HUM 3214	Ancient Classical Culture & Civilization
	or
EUH 2011	Western Civilization: Early European Civilization
Culture	
HUM 3432	The Roman World
HUM 4431	The Greek World
PHH 3100	Ancient Philosophy
POT 3013	Ancient and Medieval Political Thought
ANT 3101	Introduction to Archaeology
ARH 3210	Early Christian and Byzantine Art
ARH 4131	Greek Art
ARH 4151	Roman Art
History	
EUH 3400	Greek History
EUH 3411	Ancient Rome
EUH 4300	Byzantine History
EUH 4401	History of Fifth Century Greece
EUH 4408	Age of Alexander the Great
Religion	
REL 3209	The Dead Sea Scrolls
REL 3220	Moses, Priests and Prophets
REL 3250	Jesus and the Early Christians
REL 3270	Biblical Theology
REL 3280	Biblical Archaeology
REL 3320	Moses, Jesus, Muhammed
REL 3325	Religions of Classical Mythology
REL 3510	Early Christianity
REL 3551	Mary and Jesus
REL 3625	Introduction to Talmud
REL 4224	The Prophets and Israel
REL 4251	Jesus and Paul
REL 5614	Ancient Judaism
Language	
GRE 1130	Classical Greek I
GRE 1131	Classical Greek II
GRE 2200	Intermediate Classical Greek
GRE 3041	New Testament Greek II
GRE 3050	New Testament Greek I
GRW 3210	Greek Prose Writers
HBR 3100	Biblical Hebrew I
HBR 3101	Biblical Hebrew II
LAT 1130	Latin I
LAT 1131	Latin II
LAT 2200	Intermediate Latin
LAT 3202	Latin Prose Writers

Asian Studies Certificate Program

Steven Heine, *Director, Religious Studies and History*

Coordinating Committee
Pascale Becel, *Modern Languages*
Krishnan Dandapani, *Finance, College of Business*
Asuka Haraguchi, *Modern Languages*
Nathan Katz, *Religious Studies*
Paul Kowert, *International Relations*
Li Ma, *Modern Languages*

The certificate in Asian studies provides students with a rich learning experience about a fascinating and increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program provides a multidisciplinary approach covering the philosophy, religion, art history, language and literature of Asia as well as issues in history, politics, geography, sociology/anthropology, and international relations.

The Institute for Asian Studies offers courses in humanities/fine arts and social sciences/professions that cover the regions of East, South, and Central Asia, as well as pan-regional or comparative studies. The Asian studies certificate requires a total of eighteen credits and includes the following:

a) Two semesters or equivalent of an Asian language (e.g. Chinese or Japanese); five credits of language courses may be applied to the certificate.
b) 18 credits from the coursework listed below to be chosen with the approval of the Director with a "C" or better, with at least 3 credits in Humanities/Fine Arts or Social Sciences/Professions; in addition to the courses listed here, relevant special topics, area studies, or comparative studies courses may also be applied. **These courses represent a partial list; students should consult with an advisor for**

the certificate program about current course offerings and a full list of courses accepted for the certificate.

Humanities/Fine Arts (at least 3 credits)

AMH 4544	The United States and the Vietnam War
AML 4930	American Writers and the Orient
ARH 4552	Art of China and Japan
ASN 4510	Dynamics of Asia
COM 3410	Culture Communication Patterns of Asia
PHH 3810	Philosophy of Buddhism
PHH 3840	Indian Philosophy
PHI 3762	Eastern Philosophy and Religious Thought
PHP 3840	Chinese & Japanese Philosophy
REL 3027	Meditations and Mystical Traditions
REL 3313	Sources of Modern Asian Society
REL 3314	Religions of the Silk Road
REL 3330	Religions of India
REL 3028	Sacred Places, Sacred Travels
REL 4311	Religious Classics of Asia
REL 4312	Jews of Asia
REL 4340	Survey of Buddhism
REL 4345	Zen Buddhism
REL 4351	Religion and Japanese Culture
SPW 4133	Eastern Thought and Latin America Literature

Language Courses (at least 3 credits)

CHI 3132	Chinese I
CHI 3133	Chinese II
CHI 3202	Intermediate Chinese
CHI 3440	Business Chinese
JPN 1130	Japanese I
JPN 1131	Japanese II
JPN 3202	Intermediate Japanese
JPN 3930	Special Topics: Intermediate Japanese Conversation
JPN 3931	Special Topics: Japanese for Business
JPN 3932	Special Topics: Japanese IV
JPN 3500	Japanese Culture and Society

Social Sciences/Professions (at least 3 credits)

ARC 4754	Asian and African Architecture
CPO 3502	Politics of the Far East
CPO 3541	Politics of China
CPO 3553	Politics of Japan
ECS 3001	Comparative Economic Systems
ECS 3200	Economics of Asia
EDF 4xxx	Education of Japan
EDF 4xxx	Arts & Education in China
EIN 3xxx	Global Manufacturing and Production
EVR 3402	Asian Environmental Issues
FIN 3652	Asian Financial Markets & Institutions
GEA 3554	Geography of Russia and Central Eurasia
INR 3223	Japan and the United States
INR 3224	International Relations of East Asia
INR 3226	International Relations of Central Asia and The Caucasus
INR 3232	International Relations of China
INR 3705	Geography of Central Asia and the Caucasus
INR 4032	Asia and Latin America In World Affairs
INR 4082	Islam in International Relations
SYD 3xxx	Comparative Sociology Japan and the U.S.

Study Abroad

Students are encouraged to earn credits through a study abroad (summer travel) or student exchange (one or two semesters travel) program with a university in Asia. Several programs are offered. Students may earn three to six credits for study abroad and up to fifteen credits for student exchange. Please inquire with the Director or with the Office of Education Abroad about international programs.

For more information, contact the Institute for Asian Studies, DM 300B. Email: asian@fiu.edu; phone: (305) 348-1914; website: http://asian.fiu.edu.

Asian Globalization and Latin America Certificate

Steven Heine, *Project Co-Director, Religious Studies and History*

Coordinating Committee

Orlando Garcia, *Music*
Asuka Haraguchi, *Modern Languages*
Douglas Kincaid, *Sociology/Anthropology*
Ana Roca, *Project Co-Director, Modern Languages*
Richard Tardanico, *Sociology/Anthropology*
Juan Torres-Pou, *Modern Languages*
Maida Watson, *Modern Languages*

The Asian Globalization and Latin America Certificate is an eighteen credit course of study designed to offer both pre and post-baccalaureate students as well as degree-seeking students specializing in various disciplines with regards to the Globalization of Asia and Latin America.

The certificate focuses on the language and culture of both Asia and Latin America (specifically Chinese, Japanese, Portuguese and Spanish), while allowing the student to specialize in such fields as Anthropology, Business, Dance, Fine Arts, History, International Relations, Music, Philosophy, and Religion as related to the regions. Students may apply towards the certificate up to 5 credits of language instruction from language courses taken at FIU or from study abroad (see advisors).

For all students, the certificate represents a way to gain specialized knowledge of integrative, transregional issues in relation to Asia and Latin America. For students pursuing a degree, the certificate should be understood as a complement to the student's major area of study. Non-degree seeking students can use the certificate as a demonstration of their understanding of the regions and their global phenomena through language, culture and other areas.

Prescribed Courses and Other Requirements

Courses are to be chosen from the following list in consultation with and approval of the advisor. A grade of 'C' or better is required for all courses (C- is not acceptable). **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.**

1. All students are required to demonstrate proficiency (two semesters) in one language group and familiarity (one semester) in the other. Students already demonstrating proficiency in an Asian or Latin American language may be exempt from this requirement. This requirement may be satisfied through examination (see advisors), course work, or by completing one of the following sequences:

Group A: Chinese & Japanese:

CHI 3132	Chinese I	5
CHI 3133	Chinese II	5
CHI 3202	Intermediate Chinese	3
JPN 1130	Japanese I	5
JPN 1131	Japanese II	5
JPN 3202	Intermediate Japanese	3

Group B: Portuguese & Spanish:

POR 1130	Portuguese I	5
POR 1131	Portuguese II	5
POR 2200	Intermediate Portuguese	3
	or	
POR 3202	Accelerated Portuguese I	5
POR 3233	Accelerated Portuguese II	5
SPN 1130	Spanish I	5
SPN 1131	Spanish II	5
SPN 2200	Intermediate Spanish	3

2. At least 18 semester hours of courses from the following certificate program course listing, or others approved by the certificate program advisor. Students must take courses from at least three fields (Fields 1-7) distributed across three regional areas: A) Asian Studies; B) Latin America Studies; and C) Global Studies. Students should note that fields vary in the quantity of course offerings across regional areas. Up to 5 credit-hours may be applied from language requirement courses (see above).

Area A: Asian Studies Courses

The following core courses fulfill certificate requirements. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.** A minimum of 6 credit-hours must be taken from this list. A maximum of two tutorial or Independent Study courses may be taken only with professors whose area of research is Asian Studies, and only with approval from the advisor.

Field 1: Language, Literature and Culture

CHI 3132	Chinese I
CHI 3133	Chinese II
CHI 3202	Intermediate Chinese
CHI 3440	Business Chinese
JPN 1130	Japanese I
JPN 1131	Japanese II
JPN 3202	Intermediate Japanese
JPN 3140	Japanese for Business
JPN 3500	Japanese Culture and Calligraphy
COM 3410	Cultural Communication Patterns in Asia

Field 2: Philosophy and Religion

PHH 3840	Indian Philosophy
PHH 3810	Philosophy of Buddhism
PHI 3762	Eastern Philosophical and Religious Thought
PHP 3840	Chinese and Japanese Philosophy
REL 4311	Religious Classics of Asia
REL 4312	Jews of Asia
REL 4340	Survey of Buddhism
REL 4345	Zen Buddhism
REL 3330	Religions of India

Field 3: Sociology & Anthropology, and Environmental Studies

ANT 4328	Area Studies: Asia or Southeastern Asia and China
EVR 4276	Asian Environmental Issues
SYA 4170	Comparative Sociology [Asia & Latin America]
SYD 4610	Area Studies: Social Structure and Problems

Field 4: History

AMH 4544	The United States and the Vietnam War

Field 5: Politcal Science and International Relations & Geography

CPO 3553	Government and Politics in Japan
CPO 3502	Politics of the Far East
CPO 3541	Politics of China
INR 3223	Japan & the United States
INR 4773	Asia & Latin America in World Affairs
INR 3232	International Relations of China
INR 3224	International Relations of East Asia

Field 6: Economics and Finance

ECS 3200	Economics of Asia

Field 7: Fine Arts

ARH 4552	Art of China and Japan

Area B : Latin American Studies Courses

The following core courses fulfill certificate requirements. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.** A minimum of 6 credits must be taken from this list. A maximum of two tutorial or Independent Study courses may be taken only with professors whose area of research is Asian Studies, and only with approval from the advisor.

Field 1: Language, Literature and Culture

POR 1130	Portuguese I
POR 1131	Portuguese II
POR 2200	Intermediate Portuguese
POR 3202	Accelerated Portuguese I
POR 3233	Accelerated Portuguese II
POR 3440	Business Portuguese
POR 3500	Luso-Brazilian Culture
POW 4930	Special Topics: Brazilian Literature
POW 4390	Brazilian Cinema
SPN 1120	Spanish I
SPN 1121	Spanish II
SPN 2200	Intermediate Spanish
SPN 3440	Spanish for Business
SPN 3520	Spanish American Culture
SPW 3371	Latin American Short Story
SPW 3520	Prose & Society
SPW 4364	Spanish American Essay
SPW 4xxx	Literature of the Philippines

Field 2: Philosophy and Religion

PHH 3042	Latin American Philosophy
REL 4481	Contemporary Latin American Religious Thought

Field 3: Sociology & Anthropology, and Environmental Studies

ANT 3780	Anthropology of Brazil
ANT 4164	Inca Civilization
ANT 4324	Mexico
ANT 4328	Maya Civilization
ANT 4330	Contemporary Maya Cultures
ANT 4332	Latin America
ANT 4334	Contemporary Latin American Women
ANT 4340	Cultures of the Caribbean
ANT 4343	Cuban Culture and Society
EVR 5065	Ecology of Costa Rican Rainforest
EVR 5066	Ecology of the Amazon Flooded Forest
SYA 4170	Comparative Sociology [Asia & Latin

	America]
SYD 4630	Latin American and Caribbean Social Structure

Field 4: History

LAH 2020	Latin American Civilization
LAH 3132	The Formation of Latin America
LAH 3200	Latin America: The National Period
LAH 3450	Central America
LAH 3740	Comparative History of Latin American Rebellions
LAH 4433	Modern Mexico
LAH 4482	Cuba: 18th-20th Centuries
LAH 4600	History of Brazil
LAH 4720	Family & Land in Latin America
LAH 4721	History of Women in Latin America
LAH 4750	Law & Society in Latin America

Field 5: Politcal Science and International Relations & Geography

CPO 3304	Politics of Latin America
CPO 4340	Politics of Mexico
CPO 4323	Politics of the Caribbean
CPO 4303	Politics of South America
GEA 3400	Population & Geography of Latin America
GEA 3320	Population & Geography of the Caribbean
INR 3425	International Relations of Latin America
INR 3246	International Relations of the Caribbean
INR 4247	Caribbean Regional Relations
INR 4244	Latin America in International Politics

Field 6: Economics and Finance

ECS 3401	The Brazilian Economy
ECS 3402	The Political Economy of South America
ECS 3403	Economics of Latin America
ECS 3404	Economic Integration: Latin America
ECS 3430	Economic Development of Cuba
ECS 3431	Economics of the Caribbean Basin
ECS 3432	Economic Integration: Caribbean

Field 7: Fine Arts

ARH 4670	20th Century Latin American Art
DAA 3343	Cultural Dance Forms (Afro-Brazilian Dance)
MUH 3061	Music of Mexico and Central America
MUH 3062	Music of the Caribbean
MUH 3541	Music of Latin America: Folklore & Beyond

Area C: Comparative & Global Studies Courses

The following core courses fulfill certificate requirements. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.** A minimum of 6 credits must be taken from this list. A maximum of two tutorial or Independent Study courses may be taken only with professors whose area of research is Asian Studies, and only with approval from the advisor.

Field 1: Language, Literature and Culture

LIN 4931	Bilingualism: Heritage Languages in North America
SPW 3130	Intoduction to Spanish American Literature
SPW 4470	Asia in the 19th Century Hispanic Literature
SPW 4133	Eastern Thought and Latin American Literature. The age of Octavio Paz.

Field 2: Philosophy and Religion

REL 3027	Meditation and Mystical Traditions
REL 3302	Studies in World Religions
REL 3170	Ethics in World Religions
REL 3028	Sacred Places, Sacred Travels
REL 3123	Asian Religions in the Americas
REL 4128	Religions of the Silk Roads

Field 3: Sociology & Anthropology, and Environmental Studies

ANT 3403	Cultural Ecology
ANT 4306	The Third World
EVR 4128	Global Perspectives of Emerging Infectious Diseases
HUM 4491	Cultural Heritage & Cultural Changes
SSE 4380	Developing a Global Perspective
SYA 4170	Comparative Sociology [Asia & Latin America]
SYD 4610	Area Studies: Social Structures & Problems
SYD 4700	Minorities
SYP 4441	Sociology of World Development
SYP 4454	Globalization and Society

Field 4: History

WOH 2001	World Civilization

Field 5: Politcal Science and International Relations & Geography

CPO 3403	Politics of the Middle East
CPO 4053	Political Repression & Human Rights
GEA 2000	World Regional Geography
INR 3081	Contemporary International Problems
INR 4283	International Relations, Development & the Third World
INR 4054	World Resources & World Order
INR 4044	World Population Problems
INR 4024	Ethnicity & Nationality: World Patterns and Problems
LBS 4653	Labor Movements in Developing Countries

Field 6: Economics and Finance

ACG 4251	International Accounting
ECO 3704	International Economics
ECO 4703	International Trade Theory & Policy
ECO 4713	International Macroeconomics
ECO 4733	Multinational Corporations
ECO 4701	World Economy
ECS 3003	Comparative Economic Systems
ECS 3013	Introduction to Economic Development
EIN 4129	Global Manufacturing & Production Operations Management
FIN 4615	International Banking
FIN 4604	International Finance
MAN 4600	International Management
MAN 4610	International and Comparative Industrial Relations
MAN 3602	International Business
MAR 4156	International Marketing
MAR 4144	Export Marketing

Field 7: Fine Arts

DAN 4932	Dance Ethnology Visual Arts
MUH 3052	Music of the World

The Certificate in Asian Globalization and Latin America requires study in three different general fields from a list of seven possible fields, and three different regional areas. These fields represent courses in Language & Literature, Philosophy & Religion, Sociology & Anthropology and

Environmental Studies, History, Politcal Science and International Relations & Geography, Economics & Finance, and Fine Arts. All courses acceptable towards the certificate deal with some aspect of Asia, Latin America, and/or transregional issues. The combination of courses allows for the student to gain broad-based, multidisciplinary expertise within a specialization on Asian globalization and Latin America.

For more information, contact the Institute for Asian Studies, DM 300B. Email: asian@fiu.edu; phone: (305) 348-1914; website: http://asian.fiu.edu.

Chinese Studies Certificate Program

Steven Heine, *Director, Institute for Asian Studies*
Li Ma, *Associate Director, Institute for Asian Studies*

Coordinating Committee
Tom Breslin, *International Relations*
David Chang, *Art Education*
Bongkil Chung, *Philosophy*

This certificate program offers an 18-credit sequence of courses and is intended to provide students with a rich learning experience about a fascinating and increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program focuses on language studies requiring two years of Chinese and provides a multidisciplinary approach covering the philosophy, religion, art history, and literature of China as well as issues in history, politics, geography, sociology/anthropology, and international relations.

Certificate Requirements

Language Requirement (up to 12 credits)
Students are required to obtain two years or equivalent of Chinese language. Credits toward the certificate will be applied for Chinese II or higher.

Elective Courses (6-7 credits)
All students are to choose from the courses listed below with the approval of the Director with a "C" or better. Students may select ASN 4911 for 1-6 credits of Independent Study. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.**

Humanities/Fine Arts

AML 4930	American Writers and the Orient
ARH 4552	Art of China and Japan
ASN 4510	Dynamics of Asia
EDF 4xxx	Arts and Education in China
ASH 4300	East Asia Civilization
ASH 4384	History of Women in Asia
ASH 4404	History of China
LIT 3930	Asian Film and Literature
PET 3148	Introduction to Martial Arts
PHI 3762	Eastern Philosophical and Religious Thought
PHP 3840	Chinese and Japanese Philosophy
REL 4340	Pathways to Buddha
REL 4345	Zen Buddhism
ASN 3042	Asian Religions and Arts
ASN 3403	Zen and the Art of Tea Ceremony

Social Sciences/Professions

ARC 4754	Asian and African Architecture
CHI 3440	Chinese for Business
CPO 3502	Politics of the Far East
CPO 4541	Politics of China
ECS 3003	Comparative Economic Systems
ECS 3200	Economics of Asia
EVR 3402	Asian Environmental Issues
FIN 3652	Asian Financial Markets and Institutions
HFT 4xxx	Experiencing Hospitality in China
INR 3224	International Relations of East Asia
INR 3232	International Relations of China
MAN 4600	International Management
SYD 3650	Gender and Power in Asia
SYD 4610	Sociology of Asia

In addition to the courses listed here, relevant special topics, study abroad credits, area studies or comparative studies courses may also be applied. Students are encouraged to earn credits through study abroad in China or through internships.

For more information, contact the Institute for Asian Studies, DM 300B. Email: asian@fiu.edu; phone: (305) 348-1914; website: http://asian.fiu.edu.

Comparative Immunology Certificate Program

Charles H. Bigger, *Director, Biological Sciences*

Coordinating Committee
Sylvia Smith, *Biological Sciences*

This academic certificate provides students with in-depth training in the interdisciplinary research field of Comparative Immunology. In general, Comparative Immunology is the study of the immune responses and defenses of animals other than humans. Research areas include studies in domesticated animal health, the use of animal models for human biomedical research, and the hunt for natural products of biomedical interest. Additionally, in recent years, there has been an increasing interest and concern raised about wild life (terrestrial and aquatic) health and diseases. This field also includes the integration of immunology, endocrinology, and neuroscience.

Prerequisite Courses

BSC 1010	General Biology I	3
BSC 1010L	General Biology Lab I	1
BSC 1011	General Biology II	3
BSC 1011L	General Biology Lab II	1
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1

Total credits required: 20 semester hours

Required Courses

PCB 4233	Immunology	3
PCB 4233L	Immunology Lab	1
PCB 5238	Marine Comparative Immunology Workshop	1
PCB 6235	Comparative Immunology	3
MLS 5515	Advanced Diagnostic Immunology	3
MLS 5937	Current Topics in Comparative Imunology	3

(students enroll for three semesters)

Choice of one: 3 credits required

PCB 6237	Immunogenetics
PCB 5754	Comparative Pathology
MLS 6180	Immunopathology

Three credits in a Comparative Immunology Lab in one of the following courses:

MLS 4905/6905	Independent Study
MLS 4910/6910	Directed Independent Research
BSC 4914/6916	Student Research Laboratory

Cuban and Cuban American Studies Certificate Program

Damián Fernández, *Director, Cuban Research Institute and Professor, International Relations*

The Cuban and Cuban American Studies Certificate Program provides an opportunity for students to integrate scholarship about Cuba and Cuban American issues from a variety of disciplines into a comprehensive program of study. The program builds on the strengths of numerous Cubanists teaching at FIU and allows students to benefit from the expertise on matters ranging from the Cuban American exile experience to the impact of Cuba on the world.

Interdisciplinary in nature, the program consists of courses from various departments, including Art and Art History, Economics, English, History, International Relations, Modern Languages, Music, Political Science, Religious Studies, Sociology and Anthropology, Theatre and Dance. Students are required to choose courses from four of the various departments to complete the certificate. All degree seeking students enrolled at FIU qualify for the certificate, which will be awarded upon graduation. It is also available to non-degree seeking students who hold a B.A. from an accredited institution. Courses at the the five-thousand and six-thousand level qualify for the program. However, undergraduates should consult with the professor prior to taking such courses. One independent study course may be submitted to count towards the certificate provided that the final paper is of thematic relevance. A working knowledge of Spanish is recommended.

Certificate Requirements:

Students will be required to take LAH 4482 Cuba: 18th-20th Centuries as well as five other courses from four of the other departments indicated for a total of 18 credits. Courses applicable for the certificate are listed every semester in the University's course schedule. To inquire if a specific course meets the certificate requirements please contact an advisor at the Cuban Research Institute.

Students interested in the certificate program should contact the Cuban Research Institute at (305) 348-1991, or e-mail crinst@fiu.edu.

The following courses fulfill certificate requirements. These courses represent a partial list; students should consult with the certificate program advisor about current course offerings.

Anthropology

ANT 4211	Area Studies: Afro-Cuban Religions
ANT 4343	Cuban Culture and Society

Art and Art History

ARH 4672	History of Cuban Art

Economics

ECS 3430	The Economic Development of Cuba/Past and Present
ECS 3431	Economics of the Caribbean Basin
ECS 3432	Economic Integration / Caribbean

English

LIT 4356	Literature of the Cuban Diaspora

History

AMH 4421	Florida Under Five Flags: Florida History from Pre-contact to 1877
AMH 4914	South Florida History: Research
LAH 3740	Comparative History of Latin American Rebellions and Revolutions
LAH 4471	Colonial Caribbean in Comparative Perspectives
LAH 4482	Cuba: 18th –20th Centuries
LAH 5905	Readings in Latin American History: Cuba 1898-1960
LAH 5935	Topics in Latin American Histroy: Colonial Caribbean in Comparative Perspectives Cuba 18th- 20th Centuries Slave Trade/African Diaspora

International Relations

INR 3045	The Global Challenge of Refugees and Migrants
INR 3243	International Relations of Latin America
INR 3246	International Relations of the Caribbean
INR 4931	Topics in International Relations: Cuba in the World
INR 5935	Topics in International Relations: Cuba in the World

Modern Languages

FOL 4930	Special Topics: Hispanic Culture in the U.S.
LIN 5604	Spanish in the United States
SPN 5536	Afro-Cuban Culture
SPN 5537	Special Topics in Afro-Hispanic Culture
SPN 5824	Dialectology of the Spanish Caribbean
SPN 6535	Hispanic Culture in the U.S.
SPW 5934	Special Topics in Language/Literature: Novela Cubana 1900-1950
SPW 6367	Prose and Poetry of Jose Martí
SPW 6389	Cuban Novel and Short Story
SPW 6775	Literature of the Spanish Caribbean

Music

MUH 3541	Music of Latin America: Folklore and Beyond
MUH 5546	Music of the Americas

Political Science

CPO 4057	Political Violence and Revolution
CPO 4323	Politics of the Caribbean
CPO 4360	Cuban Politics
CPO 5325	Politics of the Caribbean
POS 4074	Latino Politics
POS 4188	Miami Politics
POS 4314	American Ethnic Politics
POS 4931	Topics in Politics: Florida Politics

Religious Studies

REL 3383	Caribbean Religions

Sociology

SYD 3620	Sociology of Miami
SYD 4621	Cubans in the U.S.

Theatre and Dance

DAA 2333	Afro-Cuban Dance
DAN 3394	Latin American Caribbean Dance and Culture

Environmental Studies Certificate Program

John Parker, *Director, Environmental Studies)*

Coordinating Committee
Mahadev Bhat, *Environmental Studies/Economics*
Kevin Hill, *Political Science*
Jim Huchingson, *Religious Studies*
Suzanne Koptur, *Biology*
Rod Neumann, *International Relations*

The Certificate Program in Environmental Studies is designed to provide students in various majors with the unique perspective of interdisciplinary ecological education to both enrich and expand the breadth of their primary training. The Certificate seeks to provide participants with an analytic basis for understanding the milieu of local and global environmental problems and processes.

The program requires no prerequisite and is complementary to majors in all disciplines and schools at the University. This certificate is appropriate also for persons who already have a degree but would like to increase their knowledge of contemporary environmental issues.

The curriculum for the Environmental Studies Certificate consists of six courses (18-20 credits).

I. Two Environmental Science Courses:

EVR 3011/L	Environmental Pollution and Lab
EVR 3013/L	Ecology of South Florida and Lab

Students with science backgrounds should take instead two environmental science courses from the following:

EVR 4026	Biotic Resources
EVR 4211/L	Water Resources and Lab
EVR 4231	Air Resources
EVR 4312	Energy Resources

II. Two additional Environmental Social Sciences courses from the following:

ANT 3403	Cultural Ecology
GEO 3421	Cultural Geography
ECP 3302	Environmental Economics
EVR 4415	Population and Environment Issues
EVR 4352	U.S. Environmental Policy
INR 4350	International Environmental Policy
PUP 3206	International Law and the Environment
PUP 4203	Environmental Politics
REL 3492	Earth Ethics

III. Two additional Environmental Electives from the following:

AMH 4930	Environmental History
ANT 3403	Cultural Ecology
ANT 4552	Primate Behavior and Ecology
ANT 5548	Ecological Anthropology
BOT 3014	Plant Life Histories
BOT 3153	Local Flora & Lab
BSC 5825	Wildlife Biology
ECP 3302	Introduction to Environmental Economics
ECP 4314	Land and Resource Economics
ENY 4060	Advanced Entomology & Lab
EVR 3010	Energy Flows in Natural and Man-Made Systems
EVR 3013	Ecology of South Florida & Lab
EVR 4026	Biotic Resources
EVR 4211	Water Resources
EVR 4231	Air Resources
EVR 4310	Energy Resources
EVR 4321	Sustainable Resource Development
EVR 4323	Restoration Ecology
EVR 4351	U.S. Energy Policy
EVR 4352	U.S. Environmental Policy
EVR 4401	Conservation Biology
EVR 4415	Population and Environment Issues
EVR 4905	Independent Study
EVR 4934	Special Topics
EVR 5061	South Florida Ecology
EVR 5065	Ecology of Costa Rican Rainforest
EVR 5067	Tropical Forest Conservation
EVR 5300	Topics in Urban Ecology
EVR 5313	Renewable Energy Sources
EVR 5320	Environmental Resource Management
EVR 5353	International Energy Policy
EVR 5355	Environmental Resource Policy
EVR 5406	U.S. Endangered Species Management
EVR 5410	Human Population & Earth's Ecosystem
EVR 5907	Research and Independent Study
EVR 5935	Special Topics
EVR 5936	Topics in Environmental Studies
GEO 3510	Earth Resources
GEO 3421	Cultural Geography
GLY 3039	Environmental Geology & Lab
HFT 4701	Sustainable Tourism
INR 3043	Population and Society
INR 4054	World Resources, World Order
INR 4350	International Environmental Politics
LIT 4930	Literature and the Environment
MCB 4603	Microbial Ecology
PCB 3043	Ecology & Lab
PHI 3640	Environmental Ethics
PUP 3206	International Law and the Environment
PUP 4203	Environmental Politics
REL 3492	Earth Ethics
SOP 4712	Environmental Psychology
SYP 4421	Man, Society and Technology
ZOO 3892C	Biology of Captive Wildlife
ZOO 4462C	Herpetology

Total Credit Hours: 18-20

Ethnic Studies Certificate Program

John F. Stack, Jr., *Director, Political Science*

Coordinating Committee
Ralph S. Clem, *International Relations*
Mark D. Szuchman, *History*

The College of Arts and Sciences offers the student a program in ethnic studies, in recognition of the place ethnic studies enjoys in the social sciences and humanities, and the importance of ethnic studies in today's world. The Program seeks to establish a proper balance between its academic goals and objectives and the on-going concerns of the University's local and international constituencies. The Program contains four specialized areas: Black Studies, Jewish Studies, Cuban Studies, and Comparative Studies.

The Certificate in Ethnic Studies is awarded with a bachelor's degree or upon completion of Certificate requirements, to a student who already possesses that degree. The Certificate will specify the area of concentration chosen by the student.

A student may acquire the Certificate in Ethnic Studies by fulfilling the following requirements:

General Requirements: A minimum of six courses with a grade 'C' or higher.

Courses in both the 'Core' and 'Specialized' areas (indicated below) must be taken from at least two different departments.

A maximum of one course in a relevant language will be accepted.

A maximum of two courses of independent study will be accepted.

The Program Director must approve the student's overall plan and all special topics courses must be approved by Certificate advisors in each area.

The Program is especially eager to encourage programs of study abroad and field work in general. Credit for such programs will be awarded on an individual basis after evaluation by the Director and the Coordinating Committee, but in no case will it consist of more than three courses towards the Certificate.

Specific Requirements

A core of a minimum of two to three courses in a theoretical and conceptual nature in the area of ethnic studies

A minimum of three to four specialized courses in one of the four distinct areas: Black Studies, Jewish Studies, Cuban Studies, Comparative Studies.

Core Courses

SYD 4700 or ANT 4451: Minorities; POS 4314: Ethnic Politics; INR 4084: Ethnicity in World Politics; INR 4024: Ethnicity and Nationality; ECP 3144: Economics of Race and Sex Discrimination; SOP 4444: Attitudes and Ethnicity.

Specialized Courses

(*Note*: This is not an exhaustive list; students should consult with the Director of the program on current offerings.)

Specialized Courses in Cuban Studies		
ECS 4430	The Economic Development of Cuba	3
FOW 4390	Genre Studies *(with reference to Cuban Literature)*	3
INR 3246	International Relations of the Caribbean	3
SYD 4630	Latin American and Caribbean Social Structures	3
SYA 4124	Social Theory and Third World Innovations	3
Specialized Courses in Black Studies		
AML 5305	Major American Literary Figures	3
ANT 4315	Afro-American Anthropology	3
ANT 4352	African Peoples Culture	3
LIT 4188	Regional Literature in English	3
LIT 4930	Special Topics	3
MUH 2116	Evolution of Jazz	3
Specialized Courses in Jewish Studies		
GEA 3630	Population and Geography of the Middle East	3
INR 3274	International Relations of the Middle East	3

European Studies Certificate

Paul Mullen, *Director, Political Science*

Coordinating Committee

Pascale Becel, *Modern Languages*
Christine Gudorf, *Religious Studies*
Alan Gummerson, *Economics*
Tatiana Kostadinova, *Political Science*
George Kovacs, *Philosophy*
Lara Kriegel, *History*
Felice Lifshitz, *History*
Peter Machonis, *Modern Languages*
Sarah Mahler, *Sociology & Anthropology*
Asher Milbauer, *English*
Joseph Patrouch, *History*
Elisabeth Prugl, *International Relations*
Nicol Rae, *Political Science*
Meri-Jane Rochelson, *English*

The aim of the European Studies Certificate is to enable students to obtain an interdisciplinary concentration in various aspects of Europe. It is designed to enhance a student's understanding of European politics, society, and culture, drawing on a broad range of courses in the arts and sciences and thereby to complement the student's major course of study. The certificate is also available to non-degree seeking students. Students interested in the program should contact the Director.

Certificate Requirements:

The program requires 15 credit hours (5 courses) from at least three departments, distributed as follows:

Language requirement (3 credits)

One course in a European language at the intermediate level or above (2000 or higher)

Breadth requirement (9 credits)

Three courses, at 3000 level or above, at least one of which must be in the social sciences and one in the humanities, from an approved list published in the term schedule and available from the Certificate Director. These include courses from the Departments of Economics, English, Environmental Studies, History, Honors College, Humanities, International Relations, Modern Languages, Philosophy, Political Science, Religion, School of Nursing, and Art and Art History. Courses not on the list but containing substantial European content may be accepted at the discretion of the Director.

Exit Requirement (3 credits)

Interdisciplinary colloquium (EUS 4920) to be taken during the student's senior year, that will focus on a broad European topic. In it, each student will be expected to complete a major research project.

Film Studies Certificate Program

The Film Studies Certificate Program enables students to obtain an interdisciplinary concentration in film studies. The certificate program will enable students to study this important field in a rigorous systematic fashion. Film is the major art form and communication medium that transmits culture, influences society, and both reflects and shapes human conduct. Furthermore, film links diverse cultures through depiction of national societies and through language exposure. The Certificate in Film Studies will therefore give recognition to a significant medium that generates innovative theoretical, historical, literary and creative methodologies. The certificate will enhance interdisciplinary connections among Modern Languages, English, Sociology, Anthropology, Architecture, Visual

Arts, History, Religious Studies and other departments. Students will have a unique opportunity to access new films, film archives, film makers, internships and related benefits. This certificate will complement studies in other fields and enable students to obtain an intellectual background in the theories and methodologies of film culture. Moreover, it will enhance students' visual literacy and competency.

This program will require 18 credit-hours (6 courses) from the following certificate course listing, or others approved by the certificate program advisor. These courses should be understood as a partial list; students should consult with the advisor of the certificate program about current course offerings. Students are required to take a minimum of two courses from departments other than English.

Course Requirements

FIL 3006	Introduction to Film Studies	
ENG 4121	History of Film	

Twelve (12) elective credits from the following partial list:

ARC 4030	Film and the Architecture of Modern Life	3
ENC 4355	Writing About Film	3
ENG 3138	The Movies	3
ENG 4119	Film Humor and Comedy	3
ENG 4132	Studies in the Film	3
ENG 4134	Women and Film	3
ENG 4135	The Rhetoric of Cinema	3
FIL 4940	Internship in Film Studies	1-12
ENG 6935	Special Topics in College Pedagogy *(when film is the topic)*	3
CRW 5620	Advanced Screenwriting Workshop	5
AMH 3317	America and the Movies	3
LAH 4734	Latin American History Through Film	3
HUM 4406	Film and the Humanities	3
FIL 5526	Spanish Film	3
FIL 5527	Latin American Film	3
FRE 4391	French Cinema	3
POW 4390	Brazilian Cinema	3
SPW 4xxx	Contemporary Spanish Cinema	3
SPW 4580	El Dorado in Hispanic Literature and Film	3
SPW 5781	The Representation of Women in Spanish Literature and Film	3
SPW 6495	The Latin American Experience Through Literature and Film	3
REL 3111	Religion in Film	3
SYG 4003	Sociology Through Film	3
ARH 4905	Directed Studies *(when offered as film studies)*	1-6
ARH 5907	Directed Studies *(when offered as film studies)*	1-6
FIL 3001	Introduction to Film-Making	3
FIL 3201C	Film Technique I	3
FIL 4204	Film Technique II	3

Forensic Science Certificate Program

Alberto J. Sabucedo, *Director, Chemistry/IFRI*

Coordinating Committee
Kalai Mathee, *Biological Sciences*
W. Clinton Terry, *Criminal Justice*
Kenneth G. Furton, *Chemistry/IFRI*

Administered by the International Forensic Research Institute (IFRI) the Certificate in Forensic Science is designed to provide a focus for those students who are interested in pursuing a career in the forensic sciences. The program is suitable for students majoring in chemistry, biology or another natural science who wish to enter the field of forensic science. The program also allows access to persons in the community who are currently working in this area to develop or upgrade their skills.

The field of forensic science is interdisciplinary and requires significant training in the natural sciences. The prerequisite for the forensic science core courses and internship are as follows: 1 calculus course, 1 statistics course, 1 general biology course, 2 physics courses with labs, 2 general chemistry courses with labs, 2 organic chemistry courses with labs and 1 analytical chemistry course with laboratory. Upon completion of the following courses, a student may apply for a certificate in Forensic Science. The certificate will be awarded at the time of awarding the Bachelor's degree, or upon completion of this work if the student already has a Bachelor's degree. The program consists 18 credits detailed below.

Required Courses: (15)

CHS 3501	Survey of Forensic Science	3
CHS 4503C	Forensic Science	3
	or	
CHM 5542	Forensic Chemistry	3
CHS 3510C	Forensic Evidence	3
	or	
CHS 5531	Forensic Analysis	3
CHS 4533C	Forensic Biochem Appl	3
	or	
BSC 5406	Forensic Biology	3
CHS 4591	Forensic Science Internship	3
	or	
CHS 6946	Graduate Forensic Internship	3

Elective courses: (3 credits) chosen from the following list:

PCB 4524	Molecular Biology	3
PCB 4524L	Molecular Biology Lab	1
BOT 1010	Introductory Botany	3
CHM 4130	Instrumental Analysis	3
CHM 4130L	Instrumental Analysis Lab	2
CHS 4505L	Forensic Science Lab	1
CHS 5539	Forensic Toxicology	3
CCJ 3024	Overview of Criminal Justics	3
CCJ 3101	Law Enforcement Systems	3
CCJ 3271	Criminal Procedure	3
GLY 3039	Environmental Geology	3
SOP 4842	Legal Psychology	3
STA 5666	Forensic Statistics	3

*A total of 19 additional semester hours that provide greater depth in the student's area of specialization are required as part of the upper division requirements for the bachelors degree in chemistry, biology or other natural science.

Gerontological Studies Certificate Program

Pamela Elfenbein, *The Center on Aging*

Coordinating Committee
Joan Erber, *Psychology*
Kenneth Johnson, *English*

Nancy S. Wellman, *Dietetics and Nutrition*

The Certificate Program in Gerontological Studies is an undergraduate, academic certificate program designed to complement the student's major area of study.

The goals of the program are: (1) to stimulate interest in the study of aging; (2) to provide an introduction to the field of gerontology from a multidisciplinary perspective; (3) to provide foundation courses for advanced study in gerontology; and (4) to provide students seeking employment upon graduation with a sound background which will make them attractive to employers.

The State of Florida has the largest percentage of persons over 65. Demographic projections indicate that not only will Florida continue to increase its percentage of older persons, but so will the nation as a whole. Thus, it has become imperative that gerontological knowledge be increased and shared. This is critical, both for individuals to function as informed citizens and for enhanced gerontological teaching, research, and service.

The Certificate Program in Gerontological Studies seeks to meet these needs by providing a multidisciplinary approach to the study of aging. The Certificate in Gerontological Studies is awarded with a bachelor's degree, or on completion of Certificate requirements when a student already possesses a bachelor's degree. Interested students should meet with the director early to plan an individualized program to meet the student's educational or occupational goals.

Certificate Requirements: (17-18)

1. A minimum of six courses, three required courses and three elective courses, must be completed with a grade of 'C' or higher in each course.
2. Courses must be taken from at least three different disciplines.
3. Electives must be taken from two different categories listed below.
4. Up to two gerontologically relevant courses taken elsewhere may be accepted by the director.
5. Students should contact the director during registration for a list of certificate courses offered each semester.

Required Courses: (9 credits)

DEP 4464	Psychology of Aging	3
SYP 4730	Sociology of Aging	3
PCB 3241	Physiology of Aging	3

Elective Courses: (8-9 credits)

Aging in the Context of the Life-Span

DEP 2000	Human Growth and Development	3
DEP 4407	Current Issues in Aging	3
FAD 2230	Family Life Cycle	3
FAD 5450	Human Sexuality	3

Death and Dying

SYP 4740	Sociology of Death	3
PHM 4050	Philosophy of Death	3

Health and Rehabilitation

OTH 3160	Adaptive Living Skills	2
OTH 3160L	Adaptive Living Skills Lab	1
PHT 3400	Emotional Aspects of Physical Disability	2
SOP 4834	Psychology of Health and Illness	3
HME 5255	Independent Living for the Handicapped	3

Nutrition

HUN 2201	Principles of Nutrition	3
HUN 4403	Life Cycle Nutrition	3

Public Affairs and Services

HSA 4113	Issues and Trends in Health Care Delivery	3
HSA 3103	Health & Social Service Delivery Systems	3

Supervised Research/ Practicum/ Special Topics: (3 credits)

Students wishing to take an independent research project or an independent practicum in gerontology should: First obtain the collaboration of a faculty sponsor; and second, obtain the approval of the Certificate Director prior to beginning the project by submitting a one-page proposal. Credit will be obtained under the appropriate independent studies course in the faculty advisor's department. Also, special topics and other courses that have gerontological relevance may be acceptable for credit with permission of the Director.

Japanese Studies Certificate Program

Steven Heine, *Director, Religious Studies and History*
Asuka Haraguchi, *Associate Director, Modern Languages*

Coordinating Committee

Bongkil Chung, *Philosophy*
Paul Kowert, *International Relations*
Eric Messersmith, *Asian Studies*
Laura Nenzi, *History*

The certificate in Japanese Studies is an 18-credit program that provides students with intensive studies of Japanese language in relation to the culture and society of Japan and East Asia. This program is available to students who are enrolled in the Asian Studies major or certificate programs, as well as students who wish to develop a more specialized focus on Japan.

As with other Asian Studies programs students are encouraged to earn credits through study abroad or student exchange programs for travel and study in Japan in addition to internship opportunities with Japan related organizations in South Florida.

Language Requirements (4 semesters)

Students must complete two full years (four semesters) or equivalent of Japanese language. If students test out of some portion of this requirement then they must complete additional credits in studies of Japanese and/or East Asia society and culture.

JPN 1130	Japanese I
JPN 1131	Japanese II
JPN 3202	Int. Japanese I
JPN 3203	Int. Japanese II
JPN 3140	Japanese for Business (equivalent to Intermediate Japanese II)
JPW 4130	Reading Japanese Literature
JPW 4131	Reading Japanese Non-Fiction

Electives (6 credits)

Two courses in Japanese or East Asian area studies (history, religion, economics, international relations, etc.) must be completed. For a list of electives please consult the list provided with the Asian Studies major in this catalog. However, some courses in that list may not be applicable for this certificate. Therefore, students should

consult with an advisor for the certificate program to get approval for specific courses.

For more information, contact the Institute for Asian Studies, DM 300B. Email: asian@fiu.edu; phone: (305) 348-1914; website: http://asian.fiu.edu.

Judaic Studies Certificate Program

Steven Heine, *Religious Studies and History, Director*
Oren Stier, *Religious Studies, Associate Director*

Coordinating Committee

Nathan Katz, *Religious Studies*
Erik Larson, *Religious Studies*
Charles MacDonald, *International Relations*
Asher Milbauer, *English*
Meri-Jane Rochelson, *English*
Howard Rock, *History*
Mark Szuchman, *History*

The Certificate in Judaic Studies provides students with a mutlidisciplinary approach to the religion, history, language and literature of Judaism as well as issues in international relations.

The Judaic Studies Certificate requires 18 credits and includes the following:

a) Students must demonstrate a competency in the Hebrew language, at least at the HBR 2200 level, either through coursework or examination. Up to five credit hours of Hebrew language courses may be credited toward the Certificate. Another relevant language such as Yiddish may be substituted.
b) 18 credits from the coursework listed below with at least 3 credits in the Concentration in Pre-Modern History and Religion and 3 credits in the Concentration in Modern Religion and Society.

In addition to the courses listed below here, relevant special topics, area studies or comparative studies courses may also be applied. All courses must be approved by the director, and all must be passed with "C" or better.

Students are encouraged to attend lectures and workshops sponsored by the Institute for Judaic and Near Eastern Studies. For more infromation contact the Institute at (305) 348-1914 or judaic@fiu.edu.

Language Courses: (5 credits)

HBR 1120	Hebrew I
HBR 1121	Hebrew II
HBR 2200	Intermediate Hebrew
HBR 3100	Biblical Hebrew I
HBR 3101	Biblical Hewbrew II

Concentration in Pre-Modern History and Religion: (at least 3 credits)

EUH 4xxx	Apocalypse and Millennium in the Middle Ages
EUH 4xxx	Judaism and Christianity in Contact and Conflict
REL 3209	Dead Sea Scrolls
REL 3220	Moses, Priest, and Prophets
REL 3320	Moses, Jesus, and Mohammed
REL 3380	Biblical Archeology
REL 3600	Judaism
REL 3625	Introduction to Talmud
REL 3921	Jewish Mysticism
REL 3990	Women in the Bible
REL 4224	Prophets and Israel
REL 4312	Jews of Asia
WOH 3281	Jewish History to 1750

Concentration in Modern Religion and Society (at least 3 credits)

AML 4300	Major American Jewish Writers
ENG 3138	The Movies (Jewish Cinema)
ENG 4132	Film and the Holocaust
EUH 4033	Nazism and the Holocaust
INR 3045	The Global Challenge of Refugees and Migrants
INR 3274	International Relations of Middle East
LIT 3170	Topics in Literature and Jewish Culture
REL 3194	The Holocaust
REL 3630	American Judaism
REL 3672	Religion and Society in Israel
REL 4613	Modernization of Judaism
WOH 3282	Modern Jewish History

For More information contact: The Institute for Judaic and Near Eastern Studies, telephone (305) 348-1914; email: judaic@fiu.edu; website: www.fiu.edu/~judaic.

Labor Studies Certificate Program

Dawn Addy, *Labor Studies*
Thomas Humphries, *Labor Studies*
Bruce Nissen, *Labor Studies*

The Certificate in Labor Studies is an 18 credit course of study designed to offer degree-seeking students from a wide range of backgrounds an understanding of the major issues in the field. Courses must be taken from at least two disciplines other than Labor Studies. The Certificate is also appropriate for students who already have a degree and would like to acquire additional knowledge about various facets of the field of Labor Studies. Labor Studies as a discipline acknowledges insights which have emerged from decades of university-union cooperation in labor education and fulfills an academic need to study labor affairs apart from the traditional framework of industrial relations. According to this concept, Labor Studies is the academic examination of issues which confront people in the pursuit of their need for rewarding employment. The focus of inquiry is on workers as individuals, as members and/or leaders in their unions or associations, and as citizens of their communities.

Courses must be taken from at least two disciplines in addition to Labor Studies. Minimum of 18 credit hours for certificate. Courses are to be selected in consultation with advisor. A grade of 'C' or better is required for all courses. (C- is not acceptable).

Required Courses: (12 hours)

LBS 3001	Introduction to Labor Studies

Minimum of three courses (9 hours) to be chosen from the following: (additional courses from this list may be used to fulfill electives)

LBS 4101	Theories of the Labor Movement
LBS 4210	Women and Work in the United States
LBS 4501	Labor Law
LBS 4900	Directed Study in Labor Studies
SYO 4360	Work & Society

Electives (6 hours)

AMH 3270	Contemporary U.S. History
AMH 4500	United States Labor History
ECO 2013	Principles of Macroeconomics
ECO 2023	Principles of Microeconomics

ECO 3101	Intermediate Microeconomics
ECO 4622	Economic Development of U.S.
ECO 4701	World Economy
ECP 3123	Economics of Poverty
ECP 4203	Introduction to Labor Economics
ECP 4204	Theory of Labor Economics
INP 2002	Introductory Industrial/ Organizational Psychology
INR 3004	Patterns of International Relations
LBS 4401	Labor Contract Negotiations
LBS 4150	Contemporary Labor Issues
LBS 4260	Union Leadership and Administration
LBS 4461	Labor Dispute Resolution
LBS 4654	Comparative and International Labor Studies
LBS 4905	Topics in Labor Studies
LBS 4930	Topics in Labor Studies
POS 3044	Government and Politics of the U.S.
POT 3204	American Political Thought
PUP 4004	Public Policy: U.S.

Latin American and Caribbean Studies Certificate Program

Eduardo A. Gamarra, *LACC Director*

LACC Academic Advisory Committee
Irma T. Alonso, *Economics*
David B. Bray, *Environmental Studies*
Ana Roca, *Modern Languages*
Victor M. Uribe, *History*

Offered through the Latin American and Caribbean Center (LACC), this certificate encourages students to take a multidisciplinary approach to the study of Latin America and the Caribbean. The certificate may be awarded to both degree and non-degree seeking students who complete the requirements. For students pursuing a degree, the certificate is a complement to the student's discipline or major area of studies. For non-degree seeking students, the certificate provides a means for understanding more about Latin America and the Caribbean without pursuing a longer degree program.

Certificate Requirements:

1. At total of 18 credit hours of undergraduate course work with a grade of 'C' or higher. Courses must come from the approved Latin American and Caribbean Studies course listing available in the Latin American and Caribbean Center or otherwise be approved by the certificate program faculty advisor. Courses must be selected from at least two disciplines outside the student's departmental major.
2. A two-course, introductory language sequence at FIU in Spanish, Portuguese, or French. Exemption from this requirement may be obtained through a proficiency examination administered by the FIU Department of Modern Languages. Language courses may not be counted toward the fulfillment of requirement (1) above.
3. A country, regional, or topical area of concentration may be declared for the undergraduate certificate. At least three courses with significant (100% content on the approved course listing) Latin America or Caribbean content must be completed to obtain a concentration. Concentrations include: Andean Studies, Brazilian Studies, Caribbean Studies, Central America Studies, Cultural Studies, Foreign Policy and Security Studies, International Business, International Development, Haitian Studies, International Trade, Mexican Studies, or South American Studies. Students may also petition to create their own concentration, provided there are sufficient courses.

Courses approved for the Latin American and Caribbean Studies Certificate are posted each semester on the FIU Class Schedule at http://sis2.fiu.edu/classschedule. Under Special Programs and Certificate Programs select Latin American & Caribbean Studies. All courses listed from 2000 through 4000 series may be applied to the certificate. Approved courses are also posted each semester outside LACC (DM 353) or are available from the certificate advisor.

Students interested in pursuing a Latin American Caribbean Studies Certificate should contact the certificate advisor at (305) 348-2894 for an appointment, or email: MALACS@fiu.edu.

Law, Ethics and Society Certificate Program

Kenneth Rogerson, *Director*

Coordinating Committee
Christopher Grau, *Philosophy*
Kenneth Henley, *Philosophy and Religion*

This program offers a course of studies in the broad field of normative or value issues. The program seeks to develop a curriculum which will study these issues from a variety of perspectives. From philosophy we offer courses in ethical theory, social and political theory and various applied ethical courses-courses in medical ethics, business ethics, environmental ethics and so on. From political science the student sees how normative issues are considered in law and politics. In this context it is appropriate to have courses dealing with constitutional interpretation of rulings like affirmative action, environmental regulation and the like. From sociology and anthropology the student takes courses dealing with how values are incorporated in our society and how such values compare to other societies around the world.

Required Courses:

1. The certificate requires six (3 credit) courses from the following lists.
2. Two core (starred) courses are required.
3. Of the six courses,including core courses, at least one course must be taken from each of the following categories—Ethics, Law, and Society

Law

PHM 3400	Philosophy of Law*
POS 3604	Constitutional Law: Limit*
POS 3603	Constitutional Law: Powers*
POS 3283	The Judicial Process
POS 4944	Judicial Internship
SOP 4842	Legal Psychology
PSY 4930	Women, Law and Social Psychology
INR 3403	International Law
CJL 4064	Criminal Justice and the Constitution
CJL 4412	Law and Criminal Justice
POT 3054	Modern Political Theory
PHM 4430	Topics in Philosophy of Law

Ethics

PHI 3601	Ethics*
PHI 3638	Contemporary Ethical Issues*

PHI 4633	Biomedical Ethics	
POT 4621	Theories of Justice	
PHM 3200	Social and Political Philosophy	
PHM 4050	Philosophy of Death	
HSA 5455	Ethical Decisions in Health Services Administration	
INR 4090	Ethical Problems in International Relations	
PHM 4360	Topics in Political Philosophy	

Society

ISS 3330	Ethical Issues in Social Science Research*	
POT 3302	Political Ideologies	
SYG 3320	Social Deviancy	
SYG 2010	Social Problems	
ANT 3302	Anthropology of Sex and Gender	
CPO 4057	Political Violence and Revolution	
URS 4061	Public Values, Ethics and Morality in a Changing Environment	
PAD 5041	Values and Technology in Modern Society	
POT 3054	Modern Political Theory	

Legal Translation and Court Interpreting Certificate Program

Erik Camayd-Freixas, *Director*
DM-491A; (305) 348-6222; camayde@fiu.edu

This professional certificate program provides a theoretical basis and practical experience to prepare the student for the legal translation and interpretation fields (E-S and S-E). This curriculum offers both preparatory and professional development training for interpreting in the legal, medical, and business settings. Through its academic track, it offers complementary studies for the practitioner who wants to strengthen his or her competence in the field. The program consists of 30 semester credit hours.

Prerequisites

ENC 3200	Business Letters and Reports	3
SPN 3302	Review Grammar and Writing	3

Others by approval. No credits allowed.

Core Courses: (12)

SPT 3800	Foundations of Translation	3
SPT 3812	Foundations of Interpreting	3
SPT 4801	Translation Practica	3
SPT 4802	Oral Translation Practica	3

Required Program Courses: (12)

SPT 4803	Practica in Legal Translation	3
SPT 4804	Practica in Legal Interpretation	3
SPT 4940	Judicial Translation/ Interpretation Internship	3
SPT 4813	The Interpreter and Language	3
SPT 4806	Oral Skills for Interpreters	3

Electives: (6)

BUL 5105	Legal Environment of Business	3
BUL 4111	Business Law I	3
CCJ 3011	The Nature and Causes of Crime	3
CCJ 3020	An Overview of Criminal Justice	3
CCJ 3101	Law Enforcement System	3
CCJ 3290	Judicial Policy Making	3
CCJ 4280	Law and Criminal Justice	3
CCJ 4331	Probation, Parole and Community Program	3
CCJ 4662	Criminal Justice and the Minority Community	3
INR 3403	International Law	3
POS 3283	The Judicial Process	3

Other electives may be chosen with approval of the Program Director.

Linguistics Studies Certificate Program

Feryal Yavas, *Director, English*

Coordinating Committee
Jean-Robert Cadely, *Modern Languages*
Tometro Hopkins, *English*
John Jensen, *Modern Languages*
Peter Machonis, *Modern Languages*
Monica Prieto, *Modern Languages*
Ana Roca, *Modern Languages*
Ellen Thompson, *English*
Mehmet Yavas, *English*

In addition to an M.A. in Linguistics, the Linguistics Program at Florida International University offers a Certificate acknowledging that a student has demonstrated competence in course work pertaining to the study of linguistics. This Certificate is designed to meet the needs of those who have a general interest in linguistics studies, as well as those for whom work in linguistics would assist in career planning or advancement. Both undergraduate and graduate students are eligible to earn the certificate.

A student can acquire a Certificate in Linguistic Studies by successfully completing at least six courses in linguistics or linguistics-related courses, totaling eighteen credit hours. Students should consult a Certificate advisor in selecting courses.

All students must complete one introductory course and one structure course from the courses listed below for a total of six credit hours:

A minimum of one course from each of the following groups:

Introductory Courses

LIN 3010	General Linguistics	3
LIN 3013	General Linguistics	3
LIN 5018	Introduction to Linguistics	3

Structure Courses

LIN 4680	Modern English Grammar	3
FRE 4800	Contrastive Morphology	3
SPN 4802	Contrastive Syntax	3
LIN 5501	English Syntax	3

Four additional courses: (12)

In addition to the required courses stated above, all students must complete an additional four courses totaling twelve credits. Any course with an LIN prefix fulfills this requirement with the exception of LIN 3670 - Grammatical Usage. Linguistics courses with FOL, FRE, POR, and SPN prefixes also fulfill this requirement. Permission must be received from the Program Director to take courses with these prefixes. PHI 4221 (Philosophy of Language), PHI 4222 (Philosophy of Dialogue) and MHF 4302 (Mathematical Logic) also fulfill this requirement.

In addition to the requirements noted above, all of the requirements for obtaining a bachelor's degree from the University must be met, or the student must already possess a bachelor's degree.

With the advice of the Coordinating Committee, the student is encouraged to attain some degree of proficiency in a language other than his or her native language.

A Coordinating Committee representing various fields will advise students and grant the Certificate.

Middle East and Central Asian Studies Certificate Program

Steven Heine, *Asian Studies*

Coordinating Committee
Mohiaddin Mesbahi, *International Relations*
Mahadev Bhat, *Environmental Studies*
Eric Larson, *Religious Studies*
Aisha Musa, *Religious Studies*

This certificate program offers an 18-credit sequence of courses and is intended to provide students with a rich learning experience about an increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program focuses on language studies requiring two semesters of Arabic, Hebrew, or another language from the region and provides a multidisciplinary approach covering issues in geography, history, politics, religion, sociology/anthropology, and international relations. It also encourages studies of transregional issues with Central Asia.

Language Requirement (up to 6 credits): Students are required to obtain two semesters or equivalent of a Middle Easten language (e.g. Arabic or Hebrew). Language courses are listed below.

ARA 3132	Arabic I
ARA 3133	Arabic II
ARA 3202	Intermediate Arabic
HBR 1130	Hebrew I
HBR 1131	Hebrew II
HBR 2200	Intermediate Hebrew
HBR 3100	Biblical Hebrew I
HBR 3101	Biblical Hebrew II

Elective Courses (12 credits):
All students are to choose from the courses listed below with the approval of the Director with a grade of "C" or better. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.**

CPO 3403	Politics of the Middle East
CPO 4401	The Arab-Israeli Conflict
EUH 4123	Medieval Holy War
EVR 3402	Asian Environmental Issues
GEA 3554	Geography of Russia and Central Eurasia
GEA 3635	Population and Geography of the Middle East
GEA 3705	Geography of Central Asia and the Caucasus
HIS 3314	Women and Gender in Medieval Eurasia
INR 3081	Contemporary International Problems
INR 3226	International Relations of Central Asia and the Caucuses
INR 3262	Interntaional Relations of Russia and the Former USSR
INR 3274	International Relations of the Middle East
INR 4082	Islam in International Relations
REL 3220	Moses, Priests and Prophets
REL 3314	Religion on the Silk Road
REL 3320	Moses, Jesus, Mohammed
REL 3362	Islamic Faith and Society
SYA 3810	Gender and Power in Asia

In addition to the courses listed above, relevant special topics, independent study, study abroad credits, and area studies or comparative studies courses may also be applied.

For more information, contact the Institute for Asian Studies, DM 300B. Email: asian@fiu.edu; phone: (305) 348-1914; website: http://asian.fiu.edu.

National Security Studies Certificate Program

John F. Stack, Jr., *Director, Political Science and Law*

Coordinating Committee
John Boyd, *Economics*
Ralph S. Clem, *International Relations*
Edward Glab, *College of Business*
Christine Gudorf, *Religious Studies*
Steven Heine, *Religious Studies and History*
Paul Kowert, *International Relations*
Mohiaddin Mesbahi, *International Relations*
Richard Olson, *Political Science*
Luis Salas, *Criminal Justice*
Richard Tardanico, *Sociology/Anthropology*
Victor Uribe, *History*

Offered through the Jack D. Gordon Institute for Public Policy and Citizenship Studies, the certificate may be awarded to both degree and non-degree seeking students who complete the requirements. For students pursuing a degree, the certificate is a complement to a student's discipline or major area of studies. For non-degree seeking students, the certificate provides a means for understanding more about national security in the 21st century.

Certificate Requirements

1. A total of 18 credit hours of undergraduate course work with a grade of C or higher. Courses must come from the approved UCNSS course listing or be approved by the certificate advisor. Courses may include those in the student's departmental major, but must also be selected from at least two disciplines outside the student's departmental major. With the approval of the Director, courses other than those listed herein maybe substituted on a case by case basis.
2. A two-course introductory language sequence at FIU with a grade of C or higher. Exemption from this requirement may be obtained through a proficiency examination administered by the FIU Department of Modern Languages. Language courses may not be counted toward the fulfillment of requirement #1 above.

Note: Intermediate-high on the ACTFL exam (1-plus on the US government scale) can normally be attained by students with two undergraduate semesters of basic language instruction and at least one undergraduate semester of intermediate (3000/4000) instruction. Attainment of the required language proficiency is the responsibility of the student, and extra courses to achieve the required proficiency level must be taken outside the UCNSS curriculum.

Skill Requirement: (3 credit hours)

POS 4784	Analytic Writing

Core Requirement: (6 credit hours)

Select **one** of the following courses:

GEO 3176	Applications of Geographic Information Systems
SYA 3300	Research Methods

Select **one** of the following courses:

INR 3061	Conflict, Security and Peace Studies in IR
INR 3102	American Foreign Policy
INR 3203	World Politics
INR 3303	Foreign Policymaking
INR 4335	Strategic Studies & Security Studies

National Security Studies (3 credit hours)

Select **one** of the following courses:

Criminal Justice

CCJ 3101	Law Enforcement Systems
CCJ 4641	Organized Crime
CCJ 4661	Terrorism and Violence in Criminal Justice
CJE 4174	Criminal Justice: The International Perspective
CJL 4064	Criminal Justice and the Constitution

Economics

ECS 3013	Introduction to Economic Development
ECS 4013	Development Economics I
ECS 4014	Development Economics II
ECO 3203	Intermediate Macroeconomics
ECO 3704	International Economics
ECO 4321	Radical Political Economy
ECO 4400	Economics of Strategy and Information
ECO 4703	International Trade Theory and Policy

Business, Finance & Management

FIN 4461	Financial Risk Management – Financial Engineering
MAN 4613	International Risk Assessment
MAN 4702	Emergency and Disaster Management
MAN 4930	Special Topics
TRA 4621	Global Logistics

Forensics

CHS 3501	Survey of Forensic Science
CHS 4503C	Forensic Science

History

AMH 3270	Contemporary US History
AMH 4365	Technology and American Society
AMH 4540	US Military History from the Colonial Era to the Present
AMH 4544	The United States and the Vietnam War
AMH 4930	Topics in US History: US-Inter American Relations
HIS 3308	War and Society

International Relations

INR 3061	Conflict, Security and Peace Studies in IR
INR 3081	Contemporary International Problems
INR 3106	International Relations of the United States
INR 3403	International Law
INR 3502	International Organizations
INR 4054	World Resources and World Order
INR 4077	International Relations & Women's Human Rights
INR 4404	International Protection of Human Rights
INR 4411	International Humanitarian Law

Political Science

CPO 3055	Authoritarian Politics
CPO 4725	Comparative Genocide
INR 3102	American Foreign Policy
INR 4204	Comparative Foreign Policy

Sociology

ANT 4406	Anthropology of War and Violence
SYO 4300	Political Sociology
SYO 4530	Social Inequality
SYP 3300	Social Movements
SYP 3456	Societies in the World
SYP 3520	Criminology
SYP 4460	Sociology of Disasters

Area Studies (6 credit hours)

Select **two** of the following courses:

Economics

ECO 4701	World Economy
ECP 3123	Economics of Poverty
ECS 3200	Economics of Asia
ECS 3402	Political Economy of South America
ECS 3403	Economics of Latin America

Business, Finance and Management

FIN 3652	Asian Financial Markets and Institutions
FIN 4651	Latin American Financial Markets and Institutions
MAN 4660	Business in Latin America
MAN 4930	Special Topics

Geography

GEO 3001	Geography of Global Change
GIS 3048	Applications of Geographic Information Systems
GEO 3421	Cultural Geography
GEO 3471	Political Geography
GEO 3502	Economic Geography
GEA 3212	Geography of North America
GEA 3320	Population and Geography of the Caribbean
GEA 3400	Population and Geography of Latin America
GEA 3500	Population and Geography of Europe
GEA 3554	Geography of Russia and Central Eurasia
GEA 3600	Population and Geography of Africa
GEA 3635	Population and Geography of the Middle East
GEA 3705	Geography of Central Asia and the Caucasus
GEA 4202	Geography of the Borderlands

History

AFH 4100	History of Africa I
AFH 4200	History of Africa II
AFH 4342	History of West Africa
AFH 4405	History of East Africa
AFH 4450	History of South Africa
AMH 4170	Civil War and Reconstruction
AMH 4540	US Military History from the Colonial Era to the Present
ASH 3440	History of Japan
ASH 4300	East Asian Civilization and Culture

ASH 4374	History of Women in Asia
ASH 4404	History of China
EUH 2030	Western Civilization: Europe in the Modern Era
EUH 3282	European History, 1945 to Present
EUH 3570	Russian History
EUH 3576	Russian Revolution and the Soviet Union
EUH 4033	Nazism and the Holocaust
EUH 4286	Topics in European History
EUH 4462	History of Modern Germany
LAH 3132	The Formation of Latin America
LAH 3200	Latin America: The National Period
LAH 3450	Central America
LAH 3718	History of U.S.-Latin American Relations
LAH 3740	Comparative History of Latin American Rebellions and Revolutions
LAH 4932	Topics in Latin American History
WOH 3281	Jewish History to 1750
WOH 3282	Modern Jewish History

International Relations

INR 3214	International Relations of Europe
INR 3223	Japan and the United States
INR 3224	International Relations of East Asia
INR 3226	International Relations of Central Asia and the Caucasus
INR 3232	International Relations of China
INR 3243	International Relations of Latin America
INR 3246	International Relations of the Caribbean
INR 3252	International Relations of North Africa
INR 3253	International Relations of Sub-Saharan Africa
INR 3262	International Relations of Russia and the Former USSR
INR 3274	International Relations of the Middle East
INR 3331	European Foreign and Security Policy
INR 3705	Geography of Central Asia and the Caucasus
INR 4082	Islam in International Relations
INR 4085	Women and Men in International Relations
INR 4084	Ethnicity in World Politics
INR 4024	Ethnicity and Nationality: World Patterns and Problems
INR 4091	Ethical Problems in International Relations
INR 4283	International Relations, Development, and the Third World

Political Science

CPO 3204	African Politics
CPO 3304	Politics of Latin America
CPO 3403	Politics of Middle East
CPO 3502	Politics of Far East
CPO 3643	Russian Politics
CPO 4034	The Politics of Development and Underdevelopment
CPO 4053	Political Repression and Human Rights
CPO 4057	Political Violence and Revolution
CPO 4102	European Union in World Politics
CPO 4303	Politics of South America
CPO 4323	Politics of the Caribbean
CPO 4333	Politics of Central America
CPO 4340	Politics of Mexico
CPO 4360	Cuban Politics
CPO 4401	The Arab-Israeli Conflict
CPO 4404	Politics of North Africa
CPO 4461	Politics of Eastern Europe
CPO 4541	Politics of China
INR 3203	World Politics
INR 3702	Politics of World Economy
INR 4084	Ethnicity in World Politics

Religious Studies

ASN 4510	Dynamics of Asia
ASN 5315	Survey of Modern Asia
REL 3148	Violence and the Sacred
REL 3170	Ethics in World Religion
REL 3308	Studies in World Religions
REL 3310	Introduction to Asian Religions
REL 3313	Sources of Modern Asian Society
REL 3362	Islamic Faith and Society
REL 3443	Liberation Theology
REL 3672	Religion and Society in Israel
REL 4351	Religion and Japanese Culture
REL 4370	African Religions
REL 4441	Religion and the Contemporary World

Sociology

ANT 3212	World Ethnographies
ANT 3451	Anthropology of Race and Ethnicity
ANT 4211/ANT 4327	Area Studies
ANT 4306	The Third World
ANT 4324	Mexico
ANT 4332	Latin America
ANT 4340	Cultures of the Caribbean
ANT 4343	Cuban Culture and Society
ANT 4352	African Peoples and Culture
SYD 3650	Sociology of Gender and Power in Asia
SYD 4237	Immigration and Refugees
SYD 4630	Latin American and Caribbean Societies
SYD 4704	Seminar in Ethnicity
SYP 4441	Sociology of World Development

Portuguese Interpretation Studies Certificate Program

John B. Jensen, *Modern Languages*

Coordinating Committee
Erik Camayd-Freixas, *Modern Languages*
Augusta Vono, *Modern Languages*

The Portuguese Interpretation Studies professional certificate offers sequences of courses designed to help prepare bilingual speakers to work professionally in the field of Portuguese-English and English-Portuguese interpretation (oral translation). Courses provide both the theoretical bases for the work and extensive practice. Because classes are small and most class work is individualized, the program is intended to meet the needs of both students with no prior experience and of working professionals.

Language Preparation:
The language competence required for success in the program is such that students must have either native Portuguese with near-native English, or the reverse, with native English and near-native Portuguese. In either case, students are expected to have strong formal study of both languages and a period of residence where each is the national language. Students may need to enhance their

formal knowledge of one or both of their languages through specific course work, upon advice from the program Director. *It is not anticipated that students whose only contact with the second language has been in the classroom will be sufficiently prepared to undertake the Certificate.*

Core Courses (12):

PRT 3810	Introduction to Portuguese Translation and Interpretation	3
PRT 3812	Portuguese Interpretation I	3
PRT 4813	Portuguese Interpretation II	3
PRT 4814	Portuguese Interpretation III	3

Electives (6):

At least one of the two courses must be from the language area; the second course may be in either language or culture/social studies. Other courses may also be acceptable upon approval.

Language

POR 3400	Advanced Oral Portuguese	3
SPC 2050	Voice and Diction	3
SPC 2600	Public Speaking	3
LIN 3010	General Linguistics	3
LIN 5211	Applied Phonetics [pre: LIN 3010]	3
SPT 4806	Oral Skills for Interpreters	3

Culture/Social Studies

POR 3500	Luso-Brazilian Culture	3
LAH 4600	History of Brazil	3
LAH 2020	Latin American Civilization	3
AMH 2000	Origins of American Civilization	3
AMH 2002	Modern American Civilization	3
LAH 3718	History of US-Latin American Relations	3

A grade of "C" or better is required in all courses (C- is not acceptable).

Students who wish to complete both the Translation Certificate and the Interpretation Certificate may count PRT 3810 and ONE Cultural/Social Studies course toward both certificates.

Portuguese Translation Studies Certificate Program

John B. Jensen, *Modern Languages*

Coordinating Committee
Erik Camayd-Freixas, *Modern Languages*
Augusta Vono, *Modern Languages*

The Portuguese Translation Studies professional certificate offers sequences of courses designed to help prepare bilingual speakers work professionally in the fields of Portuguese-English and English-Portuguese translation (that is, written documents). Courses provide both the theoretical bases for the work and extensive practice. Because classes are small and most class work is individualized, the program is intended to meet the needs of both students with no prior experience and of working professionals.

Language Preparation:

The language competence required for success in the program is such that students must have either native Portuguese with near-native English, or the reverse, with native English and near-native Portuguese. In either case, students are expected to have strong formal study of both languages and a period of residence where each is the national language. Students may need to enhance their formal knowledge of one or both of their languages through specific course work, upon advice from the program Director. *It is not anticipated that students whose only contact with the second language has been in the classroom will be sufficiently prepared to undertake the Certificate.*

Core Courses (12):

PRT 3810	Introduction to Translation and Interpretation	3
PRT 3800	Portuguese Translation I	3
PRT 4801	Portuguese Translation II	3
PRT 4802	Portuguese Translation III	3

Electives (6):

At least one of the two courses must be from the language area; the second course may be in language, or culture/social studies. Other courses may also be acceptable upon approval.

Language

POR 3500	Portuguese for Business	3
POR 3421	Review Grammar and Writing II	3
ENC 4240	Business Letters and Reports	3
ENC 2301	Expository Writing	3
ENC 3211	Report and Technical Writing	3
CRW 2001	Introduction to Creative Writing	3
LIN 3010	Introduction to General Linguistics	3

Culture/Social Studies

POR 3500	Luso-Brazilian Culture	3
LAH 4600	History of Brazil	3
LAH 2020	Latin American Civilization	3
AMH 2000	Origins of American Civilization	3
AMH 2002	Modern American Civilization	3
LAH 3718	History of US-Latin American Relations	3

A grade of "C" or better is required in all courses (C- is not acceptable).

Students who wish to complete both the Translation Certificate and the Interpretation Certificate may count PRT 3810 and ONE Cultural/Social Studies course toward both certificates.

Pre-Modern Cultures Certificate

Felice Lifshitz, *Director, History*

Steering Committee
N. David Cook, *History*
Carol Damian, *Art and Art History*
Steven Heine, *Religious Studies*
Kathryn McKinley, *English*
Akin Ogundiran, *History*
Joseph Patrouch, *History*

The Pre-Modern Cultures Certificate Program is an eighteen credit course of study intended to enable students to gain an interdisciplinary concentration in various aspects of pre-modern culture (before 1700 CE). It is designed to enhance an undergraduate's understanding of the pre-modern cultures of the globe, and particularly to complement that student's major courses of study in fields such as Anthropology, English, History, Humanities, Modern Languages, Philosophy, Religious Studies and Visual Arts by familiarizing them with additional disciplinary approaches. The Certificate permits the in-depth exploration of one cultural area during Pre-Modernity, while developing a familiarity with analogous eras in other parts of the world, thus providing the student with both trans-temporal and cross-cultural comparative perspectives.

Courses are to be chosen from the following list in consultation with and approval of a member of the Steering Committee or other faculty advisor. A grade of "C" or better is required for all courses ("C-" is not acceptable). This listing should be understood as a partial list. Students should consult with an advisor for the certificate program about current course offerings.

At least 18 semester hours from the following certificate program course listing, or others approved by the certificate program advisor. Students must take one Introductory Core class. The five remaining courses are to be drawn from the disciplinary Concentration Areas. Of the total six courses counted towards the certificate, four must be from a base region and two from the comparative region. The regions are defined as Africa, Asia, Europe, Latin America and North America. Up to two courses which deal with the entire World may be counted toward fulfillment of either the base or comparative region requirement. For example, one course of study might include pre-modern courses distributed as two World, two Asia, and two Latin America, while another might include pre-modern courses distributed as four Europe and two World. The steering committee will occasionally offer special comparative courses, some team-taught, which will substitute for any Core or Concentration Area course. Students may substitute a maximum of two independent studies for Concentration Area classes with the written approval of the Program Director. Special topics and other relevant courses (for example Study Abroad Programs or participation in archeological digs) may be sustituted with the written approval of the Program Director. Students are strongly encouraged to study relevant languages.

Introductory Core Courses (18)

LIT 2110	World Literature
AMH 2000	Origins of American Civilization
EUH 2011	Western Civilization: Early European Civilization
EUH 2021	Western Civilization: Medieval to Modern Europe
LAH 2020	Latin American Civilization
WOH 2001	World Civilization
ARH 2050	Art History Survey
ENL 2011	Survey of British Literature
IND 2100	History of Interiors I
ARC 2701	History of Architecture I
GLY 2072	Earth's Climate and Global Change
ANT 3101	Introduction to Archeology
ANT 3144	Pre-History of the Americas
ANT 4352	African Peoples and Cultures
LAA 3712	History of Landscape Architecture
MUH 3211	Music History Survey I
REL 3308	World Religions
WOH 3281	Jewish History to 1750

Concentration Areas History (19)

AFH 4100	History of Africa I
AMH 3012	American History, 1600-1763
EUH 3411	Ancient Rome
EUH 4501	England to 1688
EUH 4600	Key Texts in Western Culture to the Renaissance
EUH 3120	Europe in the Central Middle Ages
EUH 3121	Europe in the Earlier Middle Ages
EUH 3122	Europe in the Later Middle Ages
EUH 3181	Medieval Culture
EUH 4200	17th Century Europe
EUH 4300	Byzantine History
EUH 4313	History of Spain
EUH 4432	Between Empire and Renaissance: Italy in the Middle Age
EUH 4440	The Making of Medieval France
EUH 4025	Saints, Relics, and Miracles in Medieval Europe
EUH 4123	Medieval Holy War
EUH 4187	Topics in Medieval European History
EUH 3142	Renaissance and Reformation
EUH 4613	Social History of Early Modern Europe
LAH 3132	The Formation of Latin America
LAH 4471	Colonial Caribbean in Comparative Perspectives

Civilization and Culture (20)

HUM 3214	Ancient Classical Culture and Civilization
HUM 3435	The Medieval World
HUM 3231	Renaissance and Baroque Cultures
ARH 4151	Roman Art
ARH 3350	Baroque Art
ARH 4310	Early Italian Renaissance
ARH 4311	The Art of Venice
ARH 4312	Later Italian Renaissance
ARH 4652	Pre-Columbian Art of the Andes
ARH 4655	Mesoamerican Art
ARH 4650	Pre-Columbian Art
ANT 4312	American Indian Ethnology
ANT 4164	Inca Civilization
ANT 4328	Maya Civilization
ANT 4332	Latin America

Languages and Literature (27)

AML 4213	Studies in Colonial and Early American Literature
AML 4216	Colonial Literature
LIN 4122	Historical Linguistics
LAT 3210	Latin Prose Writers
ENL 4210	Studies in Medieval Literature
ENL 4212	Medieval Women Writers
ENL 4311	Chaucer
ENL 4161	Renaissance Drama
ENL 4225	Spenser
ENL 4222	Renaissance: Prose and Poetry
ENL 4320	Shakespeare: Histories
ENL 4321	Shakespeare: Comedies
ENL 4322	Shakespeare: Tragedies
ENL 4341	Milton
LIT 3132	Arthurian Literature
LIT 4041	17th Century Drama
FRE 4840	History of Language I
FRE 4841	History of Language II
FRW 3200	French Literature I
FRW 4410	French Medieval Literature
FRW 4212	French Classical Prose
FRW 4310	17th Century French Drama
FRE 4420	16th Century French Literature
SPW 3423	Masterworks of the Golden Age
SPW 3604	Don Quijote
SPW 4334	Golden Age Poetry
SPW 4424	Golden Age Drama

Thought and Belief (22)

PHH 3100	Ancient Philosophy
PHH 3200	Medieval Philosophy
PHH 3401	16th & 17th Century Philosophy

PHI 3762	Eastern Philosophy and Religious Thought	
POT 3054	Modern Political Theory	
POT 3013	Ancient to Medieval Political Thought	
REL 3209	The Dead Sea Scrolls	
REL 3250	Jesus and the Early Christians	
REL 3270	Biblical Theology	
REL 3280	Biblical Archeology	
REL 3320	Moses, Jesus, Muhammed	
REL 3325	Religions of Classical Mythology	
REL 3330	Religions of India	
REL 3510	Early Christianity	
REL 3551	Mary and Jesus	
REL 3625	Introduction to Talmud	
REL 4251	Jesus and Paul	
REL 3520	Medieval Christianity	
REL 3530	Protestantism	
REL 3532	Reformation	
REL 4340	Pathways to Buddha	
REL 4345	Zen Buddhism	
REL 4351	Religion and Japanese Culture	
REL 3314	Religion on the Silk Road	
REL 4311	Religions Classics of Asia	

Professional Language Certificate Program

John Jensen, *Modern Languages*

Coordinating Committee

Maida Watson, *Modern Languages*

The Professional Language Certificate is a fifteen-credit course of study designed to offer both pre- and post-baccalaureate students, as well as degree-seeking students, specialization in foreign languages applicable to various professional endeavors. The certificate program is divided into separate tracks specified by language and application.

For all students, the certificate represents a way to gain specialized language knowledge. For students pursuing a degree, the certificate should be understood as a complement to the student's major area of study. Non-degree seeking students can use the certificate as a demonstration of their proficiency in specific foreign languages in their professional contexts.

Total credits Required in One Track: 15 semester hours. A grade of "C" or better is required for all courses (C- is not acceptable).

Spanish For Business Track

Prerequsite Courses: Before entering the certificate program, the student must have completed the following course or demonstrated an equivalent language proficiency through examination.

SPN 2200	Intermediate Spanish (Non-native speakers)	3

I. Required Courses: At least 15 semester hours of courses from the following certificate program course listing, or others approved by the certificate program advisor.

SPN 2201	Intermediate Spanish II (Non-native speakers)	3
	or	
SPN 2340	Intermediate Spanish for Native Speakers	3
SPN 3301	Review Grammar/Writing	3
	(Non-native speakers)	
	or	
SPN 2341	Intermediate Spanish for Native Speakers	3
SPN 3440	Spanish Business Composition/ Correspondence	3

II. Elective Courses: With program advisor's approval, a maximum of 6 credits may be taken from the following lists, with no more than 3 credits from Section A and 3 credits from Section B. This is a partial list: depending upon specific course content, other courses in International Business, Finance, Marketing, etc., may apply. Students consult the certificate advisor regarding additional courses.

Section A (maximum of 3 credits)

SPN 3422	Advanced Grammar and Composition I	3
SPN 3520	Spanish American Culture I	3
SPN 4500	Spanish Culture	3
SPT 4807	Practica in Business Translation	3

Section B (maximum of 3 credits)

ECS 3402	The Political Economy of South America	3
ECS 4403	Economics of Latin America	3
FIN 4604	International Financial Management	3
MAN 4600	International Management	3
MAN 4660	Business in Latin America	3

Portuguese For Business Track

Prerequsite Courses: Before entering the certificate program, the student must have completed one of the following courses or demonstrated an equivalent language proficiency through examination.

POR 1131	Portuguese II	5
POR 3202	Accelerated Portuguese I	5

I. Required Courses: courses are to be chosen from the following list in consultation with and approval of the advisor.

POR 2200	Intermediate Portuguese	3
	or	
POR 3233	Accelerated Portuguese II	5
POR 3420	Review Grammar/Writing	3
POR 3440	Portuguese for Business	3

II. Elective Courses: With program advisor's approval, a maximum of 6 credits may be taken from the following lists, with no more than 3 credits from Section A and 3 credits from Section B. This is a partial list: depending upon specific course content, other courses in International Business, Finance, Marketing, etc., may apply. Students consult the certificate advisor regarding additional courses.

Section A (maximum of 3 credits)

POR 3400	Advanced Oral Communication	3
POR 3500	Luso-Brazilian Culture	3
PRT 3810	Introduction to Translation and Interpretation	3

Section B (maximum of 3 credits)

ECS 3401	The Brazilian Economy	3
ECS 3402	The Political Economy of South America	3
FIN 4604	International Financial Management	3
MAN 4600	International Management	3
MAN 4660	Business in Latin America	3

Public Policy Studies Certificate Program

John F. Stack, *Director, Institute for Public Policy and Citizenship Studies*

Coordinating Committee:
J. Scott Briar, *Social Work*
Lisandro O. Perez, *Sociology/Anthropology*
Rebecca A. Salokar, *Political Science*

The academic Certificate Program in Public Policy Studies is an interdisciplinary certificate program. It provides degree-seeking students with a critical understanding of how public policy is created, how it is implemented, and how it transforms daily life.

Besides providing the students with a wide range of interdisciplinary perspectives on public policy, the certificate program also provides students with practical experience by placing them in internships with public and political organizations in South Florida, Tallahassee, and Washington, D.C. For those students looking for careers in public policy, this experience could well be crucial.

Certificate Requirements

The certificate program requires completion of 21 semester hours of college credit. POS 2042 American Government is recommended as a prerequisite course. All students must then complete a common core of coursework by selecting one course from each of the following three core course categories for a total of nine hours. Then, the student must fulfill the requirements of one of the three internship tracks: Federal Policy, (12 hours), State Policy (12 hours), or Local Policy (12 hours).

Core Courses: (9)

ECO 3021	Economics and Society-Micro	3
	or	
ECO 2023	Principles of Microeconomics	3
ECO 3011	Economics and Society - Macro	3
	or	
ECO 2013	Principles of Macroeconomics	3

One of the following three hour courses:

POS 3424	The Legislative Process	3
PAD 3033	Administrators and the Legislative Process	3
PAD 4223	Public Sector Budgeting	3

Certificate Courses

The following courses fulfill certificate requirements for core courses and those exercising the Local Policy track. This is a partial list. The student should consult with the IPPCS about current course offerings. Other courses may be substituted upon approval of the IPPCS. Transfer students may only transfer up to two courses from institutions previously attended. The program is intended to expand student options, and complement other certificate programs.

Biology

BSC 5825	Wildlife Biology
OCB 5635	Coral Reef Ecology, with lab
PCB 3241	Physiology of Aging
PCB 5358	Everglades Research and Resource Management
PCB 5686	Population Biology
ZOO 3892C	Biology of Captive Wildlife

Business Administration

MAN 3503	Managerial Decision Making
MAN 4711	Corporate Social Monitoring
TAX 4001	Income Tax Accounting
TRA 4320	Transportation Regulations
TRA 4380	Transportation Policy
TRA 4410	Air Transportation
TRA 4411	Airport Management

Civil and Environmental Engineering

ENV 5007	Environmental Planning
ENV 5062	Environmental Health
ENV 5659	Regional Planning Engineering
ENV 5666	Water Quality Management
TTE 5506	Urban Mass Transit and Transportation Planning

Construction Management

BCN 3640	Economic Planning for Construction
BCN 5755	Construction Accounting and Finance

Criminal Justice

CCJ 3290	Judicial Policymaking
CCJ 3300	Correctional Philosophy, Theory and Practice
CCJ 3470	Criminal Justice Planning
CCJ 3501	Juvenile Delinquency, Prevention and Control
CCJ 4453	Methods of Institutional Change
CCJ 5285	Judicial Process and Policy
CCJ 5347	Correctional Intervention Strategies
CCJ 5525	Seminar in Judicial Delinquency

Economics

ECO 3040	Consumer Economics
ECO 4321	Radical Political Economy
ECO 4504	Introduction to Public Finance
ECO 4622	Economic Development of the United States
ECO 4701	World Economy
ECO 4703	International Trade Theory and Policy
ECO 4713	International Macroeconomics
ECO 4733	Multinational Corporations
ECP 3123	Economics of Poverty
ECP 3302	Introduction to Environmental Economics
ECP 3533	Health Systems Economics
ECP 3613	Introduction to Urban Economics
ECP 4203	Introduction to Labor Economics
ECP 4204	Theory of Labor Economics
ECP 4314	Natural Resource Economics
ECP 4403	Principles of Industrial Organization
ECP 4622	Regional Economic Growth Management

Education

EDF 3723	Schooling in America
EDF 4780	The Teacher and the Law
EDF 5852	Educational Developmental Issues in Context: A Multidisciplinary Perspective
EEC 4301	Trends in Early Childhood Education
EEX 5771	Independent Living for the Handicapped
HME 5255	Independent Living for the Handicapped
LEI 3437	Program Development in Parks and Recreation
LEI 5510	Program Administration in Parks and Recreation

Environmental Studies

EVR 3011	Environmental Resources and Pollution
EVR 3013	Ecology of South Florida
EVR 4021	Survey of Environmental Problems I
EVR 4022	Survey of Environmental Problems II
EVR 4211	Water Resources
EVR 4231	Air Resources
EVR 4312	Energy Resources
EVR 5236	Air Pollution Dynamics

Health Services Administration

HSA 3103	Health and Social Service Delivery Systems
HSA 4110	Health Care Organization and Administration
HSA 4113	Issues and Trends in Health Care Delivery
HSA 4140	Program Planning and Evaluation
HSA 4150	People, Power and Politics in Health Affairs
HSA 4420	Legal Aspects and Legislation in Health Care
HSC 4202	Principles and Programs in Public Health

History

AMH 4130	The American Revolution
AMH 4140	The Age of Jefferson
AMH 4160	The Age of Jackson
AMH 4251	The Great Depression
AMH 4560	History of Women in the United States

International Relations

GEO 3602	Urban Geography
GEO 5415	Topics in Social Geography
HFT 3700	Fundamentals of Tourism
INR 3043	Population and Society

Journalism and Mass Communication

ADV 4300	Media Planning
JOU 4108	Public Affairs Reporting
MMC 4609	Public Opinion and the Mass Media
PUR 4100	Writing for Public Relations
PUR 4101	Publications Editing and Design
PUR 4106	Advanced PR Writing
PUR 4934	Public Relations Seminar
PUR 5607	Advertising and Public Relations Management
PUR 5806	Integrated Advertising and Public Relations Planning and Evaluation

Labor Studies

LBS 4401	Collective Bargaining in Industrial Systems
LBS 3001	Introduction to Labor Studies
LBS 4101	Theories of the Labor Movement
LBS 4150	Contemporary Labor Issues
LBS 4210	Women and the Labor Movement
LBS 4461	Labor Dispute Resolution
LBS 4501	Industrial and Labor Relations Law

Landscape Architecture and Architectural Studies

ARC 2304	Architectural Design

Music

MUM 4301	Business of Music
MUM 4302	Business of Music II

Political Science

POS 4071	Corporate Power and American Politics
POS 3153	Urban Politics
POS 3283	The Judicial Process
POS 3413	The Presidency
POS 3424	The Legislative Process
POS 3453	Political Parties
POS 3603	Constitutional Law: Powers
POS 3604	Constitutional Law: Limitations
POS 4122	State Government and Politics
POS 4154	Topics in Urban Politics and Policy
POS 4463	Interest Group Politics
POS 4605	Gender Justice
POS 4930	Topics in Public Law
POT 3204	American Political Thought
PUP 4004	Public Policy: U.S.
PUP 4203	Environmental Politics and the Law
PUP 4323	Women in Politics
PUP 4931	Topics in Public Policy
PUP 5934	Topics in Public Policy

Psychology

CLP 5185	Current Issues in Mental Health
CYP 3003	Introduction to Community Psychology

Public Administration

PAD 3033	Administrators and the Legislative Process
PAD 3034	Public Policy and its Administration
PAD 3804	Government and Administration of Metropolitan Areas
PAD 4103	Politics of Administrative Organizations
PAD 4223	Public Sector Budgeting
PAD 4432	Administrative Leadership and Behavior
PAD 5256	Public Economics

Social Work

SOW 3232	Social Welfare Policy and Services I
SOW 3233	Social Welfare Policy and Services II
SOW 3302	Introduction to Social Work
SOW 4654	Child Welfare
SOW 5109	Crises in the Lives of Women
SOW 5235	Social Welfare Policy and Services
SOW 5641	Understanding the Process of Aging
SOW 5710	Chemical Dependency and Social Work

Sociology and Anthropology

ANT 3442	Urban Anthropology
ANT 4273	Law and Culture
ANT 4406	Anthropology of War and Violence
SYD 4410	Urban Sociology
SYD 4700	Minorities/Race and Ethnic Relations
SYD 3810	Sociology of Gender
SYO 3250	School and Society
SYO 4571	Organizations and Society
SYP 3520	Criminology
SYP 3530	Delinquency
SYP 4730	Sociology of Aging

Public Policy Tracks

Federal Policy (Intern Semester - 12 hours)

This internship is offered during the summer and involves the student taking an internship with a governmental, nongovernmental, or political organization in the nation's capital. The specifics of the internship are agreed upon by the student and the IPPCS advisor and the student receives six semester hours of credit. Like the Tallahassee Internship, the student attends an intensive two week course at FIU before leaving for the internship. While in Washington, all FIU interns are required to attend a course designed to inform them of the workings of public policy on the national and international levels: students

receive three hours of credit for a seminar in Washington. Students are responsible for their own room and board, although the Institute assists as much as possible in arranging housing and financial aid. The Washington, D.C. internship option is worth a total of 12 semester hours.

PUP 4004	Public Policy: U.S. *(Crosslisted with PAD 3034 Public Policy and its Administration (Pre-internship Seminar)*	3
PAD 4024	Concepts and Issues in Public Administration *(Crosslisted with PUP 4931 Topics in Public Policy: Federal Policy Making), to be offered in Washington, D.C.)*	3
Supervised Summer Internship in Washington, D.C.		6

Students are to register for the internship, field study or independent study course in their department (e.g., PAD 4940, POS 4944, POS 4941)

State Policy (Intern Semester - 12 hours)

Students with senior status are placed in nonpaying internships in State of Florida government agencies. Advisors from the IPPCS work with students to determine which agency is most suitable, depending upon the student's interests. This internship is held during the Spring Term in order to coincide with the State's legislative session. Students attend an intensive two week introductory course at FIU before leaving for Tallahassee. While in Tallahassee, in addition to their internship responsibilities, which are worth six semester hours, students attend a once a week seminar with other interns. This class will be coordinated by the IPPCS and features guest lecturers from governmental and political organizations. Although the students are responsible for their own room and board, the Institute helps to arrange housing and assists in the application for financial aid. The Tallahassee Internship option is worth a total of 12 semester hours.

PUP 4004	Public Policy: U.S. *(Crosslisted with PAD 3034: Public Policy and its Administration (Pre-Internship Seminar)*	3
PAD 4024	Concepts and Issues in Public Administration *(Crosslisted with POS 4122 State Government & Politics (Seminar), to be offered in Tallahassee.)*	3
Supervised Spring Internship in Tallahassee		6

Students are to register for the internship, field study or independent study course in their department (e.g., PAD 4940, POS 4944, POS 4941)

Local Policy (Intern Semester 12 hours)

This option may be the most viable for those who want to earn the certificate, but who are unable to leave South Florida for an internship. This option is designed to be as flexible as possible. The nature of this option is worked out between the student and the IPPCS advisor. The student receives three credit hours for whichever courses are completed, including a local internship. Courses must be taken in at least two different disciplines, at least one being outside the student's departmental major. Core courses may not count toward the fulfillment of these requirements.

PUP 4004	Public Policy: U.S. *Crosslisted with PAD 3034: Public Policy and its Administration (students may enroll in the regular semester course or a pre-internship seminar)*	3
Urban Policy Elective		3

Students may select one of the following:

SYD 4410	Urban Sociology	3
POS 3153	Urban Politics	3
	or	
POS 3283	The Judicial Process	3

One of the following: (3)

POS 4941	Legislative Internship	3
PAD 4940	Public Administration Internship	3
	or	
POS 4944	Judicial Internship	3

Certificate Course Elective (3)

South Asian Area Studies Certificate Program

Steven Heine, *Director, Institute for Asian Studies*
Nathan Katz, *Religious Studies*

Coordinating Committee
Mahadev Bhat, *Environmental Studies*
Bongkil Chung, *Philosophy*
Krishnan Dandapani, *Finance, CBA*
Andrea Seidel, *Theatre and Dance*

This certificate program offers an 18-credit sequence of courses and is intended to provide students with a rich learning experience about an increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program provides a multidisciplinary approach covering issues in geography, history, politics, religion, sociology/anthropology, and international relations.

Prescribed Courses and Other Requirements

All students are to choose from the courses listed below with the approval of the Director with a grade of C or better. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.**

ASH 4384	History of Women in Asia
EUH 4520	England in the 18th Century
ECS 3021	Women, Culture, and Economic Development
ECS 3200	Economics of Asia
EVR 3402	Asian Environmental Issues
FIN 3652	Asian Financial Markets and Institutions
INR 3081	Contemporary International Problems
INR 4082	Islam in International Relations
LIT 4197	Global Asian Literature
PHH 3810	Philosophy of Buddhism
PHH 3840	Indian Philosophy
REL 3026	Folk Religions in Asia and the World
REL 3310	Introduction to Asian Religions
REL 3330	Religions of India
REL 4312	Jews of Asia
REL 4340	Pathways to Buddha
SYA 3810	Gender and Power in Asia

In addition to the courses listed above, relevant special topics, independent study, study abroad credits, and area studies or comparative studies courses may also be applied.

Language: There is no specific language requirement to be met, although it is recommended.

For more information, contact the Institute for Asian Studies, DM 300B. Email: asian@fiu.edu; phone: (305) 348-1914; website: http://asian.fiu.edu.

Translation Studies Certificate Program

Erik Camayd-Freixas, *Director*
DM-491A; (305) 348-6222; camayde@fiu.edu

This professional certificate is designed to train students in the techniques and skills needed for the translation (E-S and S-E) of texts, documents, and general correspondence. It also provides the background and introductory professional courses needed for future study or work in the field of translation. The program consists of 30 semester hours.

Through its academic track, the certificate program offers complementary studies for the practitioner who wants to strengthen his or her competence in this field.

Prerequisites

ENC 3200	Business Letters and Reports	3
SPN 3302	Review Grammar and Writing	3

Others by approval. No credits allowed.

Core Courses: (12)

SPT 3800	Foundations of Translation	3
SPT 3812	Foundations of Interpreting	3
SPT 4801	Translation Practica	3
SPT 4802	Oral Translation Practica	3

Required Courses: (9)

FOT 3810	Creative Writing Translation	3
SPT 4803	Practica in Legal Translation	3
SPT 4805	Translation in Communication Media	3
SPT 4807	Practica in Business Translation	3
SPT 4808	Practica in Technological Translation	3
SPT 4809	Practica in Medical Translation	3
SPT 4820	Computer Aided Translation	3
SPT 4941	Professional T/I Internship	3

Restrictive Electives

One course from the following

ENC 2210	Technical Writing	3
SPN 3413	Communication Arts	3
SPN 3520	Spanish American Culture	3

Others by approval.

Free Electives

Two Courses from the following

ACG 2021	Accounting for Decisions	3
COP 2172	Programming in BASIC	3
ECO 3021	Economics and Society, Micro	3
ECO 3011	Economics and Society, Macro	3
HUN 2201	Principles of Nutrition	3
INR 3403	International Law	3
JOU 3100	News Reporting	3
MAN 3602	International Business	3
MAN 3701	Business and Society	3
MRE 3001	Medical Terminology	3
MRE 3431	Fundamentals of Medical Science	3
RTV 4302	Broadcasting for Reporting *(Prerequisite JOU 3100)*	3
SYG 3002	The Basic Ideas of Society	3

In addition to these subjects, the free electives may be chosen from the offerings in the departments of Sociology/ Anthropology, Communication, Computer Science, Economics, International Relations, Modern Languages, and Political Science by securing the approval of the Director of the Program.

Women's Studies Certificate Program

Core Faculty:

Suzanna Rose, *Director, Women's Studies and Professor of Psychology*
Aurora Morcillo, *Associate Director & Associate Professor of Women's Studies/History*
Vrushali Patil, *Assistant Professor, Women's Studies/Sociology*
Beverly Yuen Thompson, *Visiting Assistant Professor, Women's Studies*

Affiliated Faculty:

Dawn Addy, *Center for Labor Research and Studies*
Irma de Alonso, *Economics*
Heather Andrade, *English*
Clair Apodaca, *International Relations*
Lynne Barrett, *English*
Pascale Becel, *Modern Languages*
Michelle Beer, *Philosophy*
Ana Bidegain, *Religious Studies*
Carole Boyce Davies, *African-New World Studies*
Carol Damian, *Art and Art History*
Jennifer Desiderio, *English*
Joyce Elam, *Dean, Business Administration*
Rebecca Friedman, *History*
Maria Asuncion Gomez, *Modern Languages*
Divina Grossman, *Dean, Nursing*
Christine Gudorf, *Religious Studies*
Kimberly Harrison, *English*
Marilyn Hoder-Salmon, *English*
Vanessa Hudson, *International Relations*
Valerie Johnsen, *Honors College*
Tara Kai, *English*
Suzanne Koptur, *Biological Sciences*
Lara Kriegel, *History*
Abe Lavender, *Sociology/Anthropology*
Felice Lifshitz, *History*
Ana Luszczynska, *English*
Sarah Mahler, *Sociology/Anthropology*
Peggy Maisel, *Law*
Kathleen Martin, *Sociology/Anthropology*
Kathleen McCormack, *English*
Marilyn Montgomery, *Psychology*
Aisha Musa, *Religious Studies*
Laura Nenzi, *History*
Suzanne Onorato, *Women's Center*
Bennie Osborne, *Management*
Valerie Patterson, *Public Administration*
Joyce Peterson, *History*
Mary Lou Pfeiffer, *Honors College*
Elisabeth Prugl, *International Relations*
Ana Roca, *Modern Languages*
Meri-Jane Rochelson, *English*
Rebecca Salokar, *Political Science*
Ellen Sprechman, *English*
Dionne Stephens, *Psychology*
Judith Stiehm, *Political Science*
James Sutton, *English*
Tami Thomas, *Nursing*
Nan Van Den Bergh, *Social Work*
Gisela Vega, *Student Affairs*

Charlyne Walker, *College of Arts and Sciences*
Ophelia Weeks, *Biology*
Donna Weir-Soley, *English*
Barbara Weitz, *English*
Lois West, *Sociology/Anthropology*
Kirsten Wood, *History*

The Women's Studies Undergraduate Certificate provides an opportunity for students to integrate scholarship about gender from a variety of disciplines into a coherent program of study. The Certificate Program includes a core of required courses central to an understanding of women in a social and historical context. The courses provide a basic grounding in Women's Studies that should be useful in many other courses and as excellent preparation for graduate study and professional development. The core courses are supplemented by a variety of electives to be chosen according to the student's specific interests. Students may enroll in the Certificate Program or take courses as electives either in their major or in any discipline that offers women's studies courses for credit. Also see: http://wstudies.fiu.edu/degreeprograms.htm.

All students entering the undergraduate certificate program in Spring 2004 will have to fulfill the requirements for the new core concentration. All students admitted as certificate earners before the Spring 2004 semester will need to fulfill the old core concentration requirements.

A student may acquire the Certificate in Women's Studies by fulfilling the following requirements:

Three required Core Courses from the following:

I.

WST 3015	Introduction to Women's Studies
	or
WST3641/IDS4920	Gay and Lesbian in the US
or	
PHM 4123	Philosophy and Feminism

II.

SOP 3742	Psychology of Women
	or
SYD 3810	Sociology of Gender
	or
ECS 3021	Women Culture and Economic Development

III.

ANT 3302	Anthropology of Sex and Gender
	or
AMH 3560	History of Women in the U.S.
	or
EUH 4313	History of Modern Spain from a Gender Perspective

IV.

REL 3145	Women and Religion
	or
LIT 3383	Women in Literature *(or any English elective listed below)*
	or
WST 4504	Feminist Theory

Three electives from the following list:

Women's Studies:

WST 3015	Introduction to Women's Studies
WST 3641	Gay and Lesbian in the U.S.
WST 4504	Feminist Theory
WST 4905	Independent Study
WST 4930	Special Topics
WST 4940	Internship
WST 5507	Feminist Theory
WST 5946	Internship
WST 5905	Independent Study
WST 5935	Special Topics

African New World Studies:

AFA 4930/5002	Theory & Methods in ANWS

Art and Art History:

ARH 4871/5872	Women and Art

Economics:

ECS 3021	Women, Culture and Economic Development
ECP 3254	Women, Men & Work in the USA

English:

AML 3415	Am. Lit. & Tradition of Dissent: Rehearsing Feminism
AML 4024	Studies in 20C Af. Am. Lit.: 20th Century African Amer. Lit.
AML 4300/5305	Maj. Am. Lit. Fig.: Cather, Chopin, Wharton
AML 4503	Periods in American Literature: Women Transforming Realism
AML 4503	Per. In Am. Lit.: Literature of the Harlem Renaissance
AML 4624/5305	African-American Women Writers
AML 4930/5505	Sp. Top. In Am. Lit.: War and the 19th Century American Heroine
ENC 4930	Sp. Top. In Comp: Women Who Disrupt, Resist, Question the Status Quo
ENG 4132	Studies in Film: Women and Film of the African Diaspora
ENL 3261	19th Century British Women Novelists
ENL 4212	Medieval Women Writers
ENL 4251	Victorian Literature
ENL 4254/5505	Late Victorian Fiction
ENL 4370	Virginia Woolf and Her Circle
ENL 5220	Maj. Brit. Lit. Fig.: Sensation Writers: W. Collins & M. Braddon
LIN 4651	Gender and Language
LIT 3170	Jewish Literature: Fiction of the Jewish Immigrant Experience
LIT 3383	Women in Literature
LIT 3384	Caribbean Women Writers
LIT 3930	Sp. Topics: Women of the African Diaspora
LIT 4001	Modern Poetry-Plath & Rich
LIT 4351	Major Af. Writers: African Fiction and Film: Women's Voices
LIT 4382	Women in East Europe
LIT 4930	Special Topics: Queen Elizabeth and Her Representations
LIT 4931	Special Topics in Women's Literature
LIT 5934	Spec Topic: Women Writers of the African Diaspora

History:

AMH 3560	History of Women in the United States
AMH 4561	Early American Women's History
AMH 4562	Modern American Women's History
AMH 4930	Topics in US History: Early American Women's History
AMH 5905	Readings in Am. History: Women and Gender in the U.S.

ASH 4384	History of Women in Asia
EUH 3181	Medieval Culture
EUH 3576	Russian Revolution/Soviet Union: Gender, Politics & Society
EUH 4025	Saints, Relics, & Miracles in Medieval Europe
EUH 4286	Top In Europ. Hist: The Spanish Civil War
EUH 4313/5935	History of Women in Modern Spain
EUH 4610	Women and Gender in Europe, 1750 to Present
EUH 5905	Read. in Europ. Hist: Saints in Europe & the Americas
HIS 4930/5930	Sp. Topics: Totalitarian Regimes & Gender
HIS 4930	Sp. Topics: Women & Gender in Pre-Modern World
HIS 4935	Senior Seminar: Women & Gender in Pre-Modern Europe & Asia
LAH 4721	History of Women in Latin America
Humanities:	
HUM 3325	Women, Culture and History
HUM 3930	Female/Male: Women's Studies Seminar
HUM 4491	Russian Revolution/Soviet Union: Gender, Politics & Society
International Relations:	
INR 4085	Women & Men in International Relations
INR 5935	Topics in Int. Rel.: Feminisim and International Relations
Labor Studies:	
LBS 4154/5155	Workers & Diversity / Workplace Diversity
LBS 4210/5930	Women and Work in the United States
Modern Languages:	
FIL 4528	Hispanic Culture: Women & Film
FRW 4583	Women Writers in French
SPW 4390	Genre Studies: The Representation of Women in Spanish Film
SPW 5387	Women and Poetry
SPW 5556	Spanish Realism and Naturalism
SPW 5781	The Representation of Women in Spanish Literature & Film
SPW 5786	Spanish-American Women Writers
Music:	
MUH 3073/5075	Women in Music
Philosophy:	
PHM 4123	Philosophy and Feminism
Political Science:	
POS 4073	Military and the Citizen
POS 4605	Gender Justice and the Courts
POT 4309	Sex, Power, and Politics
POT 5307	Feminist Political Theory
PUP 4323	Women in Politics
Psychology:	
CYP 6766	Cross-Cultural Sensitization in a Multicultural Context
PSY 4822	Female Sexuality
PSY 4930	Special Topic: Research Plans & Careers
SOP 3742	Psychology of Women
Religion:	
REL 3145/5145	Women and Religion
REL 3171	Sex and Religion
REL 3520/5502	Saints, Witches and Cathedrals
REL 4146	Feminist Theology and Ethics
REL 5184	Sex, Ethics and Religion
Sociology/Anthropology:	
ANT 3302	Anthropology of Sex and Gender
ANT 3304	Voices of Third World Women
ANT 4334	Contemporary Latin American Women
SYD 3810/6325	Sociology of Gender
SYD 4820	Sociology of Men
SYG 4060	Sociology of Sexuality
SYO 3120	Marriage and the Family
SYP 4562	Domestic Violence
Public Administration	
PAD 5435	Administration & the Role of Women
Architecture:	
ARC 4227	Gender and Architecture
Business:	
MAN 4102	Managing Diversity
Criminal Justice:	
CCJ 4663	Women, Crime, and the Criminal Justice System
Social Work:	
SOW 5109	Crises in the Lives of Women

Every semester additional courses are offered and periodically special topics courses on gender are introduced. The program also offers a Bachelor of Arts in Women's Studies. For information about the major, refer to the women's studies section in the Arts and Sciences undergraduate major section.

The Center is located in DM 212, University Park, (305) 348-2408. Students may contact the Women's Studies Center director at the above location, or the Certificate Committee coordinator, North Campus, (305) 919-5859 for further information or email: wstudies@fiu.edu.

College of Arts and Sciences

Dean (Interim)	**Mark D. Szuchman**
Associate Dean, College Relations	**Gisela Casines**
Associate Dean, Budget and Facilities	**Kenneth G. Furton**
Associate Dean, Biscayne Bay Campus	**Joyce Peterson**
Assistant Dean, Advising	**Kenton Harris**

Chairpersons and Program Directors:

African-New World Studies	**Akin Ogundiran**
Biological Sciences	**David Lee**
Chemistry and Biochemistry	**Stanislaw Wnuk**
Earth Sciences	**Bradford Clement**
Economics	**John Boyd III**
English	**Carmela Pinto-McIntire**
Environmental Studies	**Joel Heinen**
History	**N. David Cook**
Humanities	**Bruce Harvey**
International Relations	**John Clark**
Latin American and Caribbean Center	**Eduardo Gamarra**
Liberal Studies	**Janat Parker**
Mathematics	**Julian Edward**
Modern Languages	**Pascale Becel**
Philosophy	**Kenneth Rogerson**
Physics	**Walter Van Hamme**
Political Science	**Richard Olson**
Psychology	**Mary Levitt**
Religious Studies	**Christine Gudorf**
Sociology and Anthropology	**Richard Tardanico**
Statistics	**Sneh Gulati**
Women's Studies	**Suzanna Rose**

Faculty

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Collins, Timothy, Ph.D. *(Yale University), Associate Professor, Biological Sciences*
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Fernandez, Damian J., Ph.D. *(University of Miami), Professor, International Relations, Director of Cuban Research Institute, and Interim Vice Provost, Biscayne Bay Campus*
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Frazier, Leslie, Ph.D. *(Syracuse University), Associate Professor, Psychology*
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Friedman, Rebecca, Ph.D. *(University of Michigan), Associate Professor, History*
Furton, Kenneth, Ph.D. *(Wayne State University), Professor, Chemistry and Biochemistry and Associate Dean, College of Arts and Sciences*
Gaiser, Evelyn, Ph.D. *(University of Georgia), Associate Professor, Biological Sciences*
Gamarra, Eduardo, Ph.D. *(University of Pittsburgh), Professor, Political Science and Director, Latin American and Caribbean Center*

Garcia, Maria, M.A. *(University of Miami), Instructor, Modern Languages*
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George, Robert, Ph.D. *(University of Washington), Lecturer, Biological Sciences*
Gerstman, Bernard, Ph.D. *(Princeton University), Professor, Physics*
Gewirtz, Jacob, Ph.D. *(Iowa State University), Professor, Psychology*
Ghai, Gauri, Ph.D. *(Iowa State University), Associate Professor, Statistics*
Ghezzi, Laura, Ph.D. *(Michigan State University), Assistant Professor, Mathematics*
Girard, Chris, Ph.D. *(University of Wisconsin), Associate Professor, Sociology/Anthropology*
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Gross, Michael, Ph.D. *(Pennsylvania State University), Associate Professor, Earth Sciences*
Gudorf, Christine, Ph.D. *(Columbia University), Professor and Chairperson, Religious Studies*
Gulati, Sneh, Ph.D. *(University of South Carolina), Professor and Chairperson, Statistics*
Gummerson, Alan, Ph.D. *(University of Wisconsin), Instructor, Economics*
Hall, James, Ph.D. *(University of Utah), Professor, English*
Haraguchi, Asuka, M.A. *(Florida State University), Instructor, Modern Languages*
Hardy, Kenneth, Ph.D. *(Tulane University), Professor Emeritus, Physics*
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Harris, Kenton, Ph.D. *(University of Miami), Lecturer, Philosophy and Assistant Dean, College of Arts and Sciences*
Harrison, Kimberly, Ph.D. *(Louisanna State University), Associate Professor, English*
Harvey, Bruce, Ph.D. *(Stanford University), Associate Professor, English and Director, Humanities Program*
Hauptli, Bruce, Ph.D. *(Washington University), Professor, Philosophy*
Heine, Steven, Ph.D. *(Temple University), Professor, Religious Studies and Director, Asian Studies Program*
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Heithaus, Michael, Ph.D. *(Simon Fraser University, Canada), Assistant Professor, Biological Sciences*
Helenon, Veronique, Ph.D. *(Centre d'Etudes Africaines, France), Assistant Professor, History*
Henley, Kenneth, Ph.D. *(University of Virginia), Professor, Philosophy*
Herrera, Rene, Ph.D. *(Fordham University), Associate Professor, Biological Sciences*
Herriott, Arthur, Ph.D. *(University of Florida), Professor, Chemistry and Biochemistry*
Hickey-Vargas, Rosemary, Ph.D. *(Massachusetts Institute of Technology) Professor, Earth Sciences*
Hill, Jonathan, Ph.D. *(University of Colorado), Assistant Professor, Economics*
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FLORIDA INTERNATIONAL UNIVERSITY

COLLEGE OF

business administration

College of Business Administration
R. Kirk Landon Undergraduate School

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Associate Dean, Academic Affairs and Undergraduate Programs **Clifford R. Perry**
Associate Dean, Alvah H. Chapman, Jr., Graduate School of Business **Tomislav Mandakovic**
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Assistant Dean, Undergraduate Advising **Lynda K. Raheem**
Director, School of Accounting **Sharon Lassar**
Director, School of Accounting **Manuel Dieguez**
Director, Executive and Professional MBA **Sarah Perez**
Director, BBA+ Weekend and BBA+ Sunrise **Donald Roomes**
Director of Knight Ridder Center for Excellence in Management **Edward Glab**
Director, Center for Internatioanl Business Education & Research (CIBER) **Mary Ann Von Glinow**
Global Entrepreneurship Center **Alan L. Carsrud**
Director, Jerome Bain Real Estate Institute **John Zdanowicz**
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Director, Accounting and Program Support **Claudio Pico**
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Director, Alumni and Partner Relations **Monique Catoggio**
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Department Chairs:
Decision Sciences and Information Systems **Christos Koulamas**
Finance **William Welch**
Management and International Business **K. Galen Kroeck**
Marketing **Peter R. Dickson**

Mission Statement

The College of Business Administration exists to create enduring educational value for our students, for our alumni, and for the business, professional, and academic communities we serve:

For our students—whom we prepare to succeed in a rapidly changing, technology-driven global business environment;

For our alumni—to whom we provide opportunities for continuing professional development and a legacy that appreciates as our excellence grows;

For the business and professional communities—to whom we offer knowledgeable graduates, educational programs, research, and collaborative projects;

For the academic community—to whom we bring new knowledge through high-quality research and the development of future scholars.

Our vision is to create a College of Business Administration that is distinguished among urban public business schools as a center for global business education, technology, and research. Our most noteworthy teaching and research expertise lies in the business arenas linking South Florida, Latin America, and the world economy.

The College offers undergraduate, graduate, professional education, customized training, and executive education programs to enterprises around the world. While continuing to meet the needs of students in the South Florida community, we are intensifying our educational service delivery to international students and enterprises, especially those in Latin America.

In all of our programs, we strive to instill in students a profound understanding of the changing nature of international business in an integrated and digital global economy. We ensure they are well versed in the impact information technology is having on how enterprises are organized and managed and on how products and services are created and marketed. We provide them with a solid grasp of business processes, the ability to think critically and to solve problems ethically, and the sense to conduct themselves with integrity and within the context of social and environmental responsibility. We foster their commitment to life-long learning in a dynamic, complex, and competitive world.

Our faculty engage in basic and applied research and in instructional development to contribute not only to the general knowledge base in the field of business but also to the ways in which this knowledge is created and shared. The College boasts a state-of-the-art information technology infrastructure that enables us to provide leading edge instruction and research, including online course delivery. At the same time, our IT investment supports our ongoing curricular innovation in related fields like enterprise-wide computing and logistics.

Organization

The College is organized into the Alvah H. Chapman, Jr. Graduate School of Business, the R. Kirk Landon Undergraduate School of Buisness, the School of Accounting and the Departments of Decision Sciences and Information Systems, Finance, Management and International Business, and Marketing.

The College also houses several centers of excellence dedicated to teaching, research, and service. These include the Jerome Bain Real Estate Institute, the Ryder Center for Supply Chain Systems, the Knight Ridder Center for Excellence in Management, the Office of Professional Education, the Office of Executive Education, the Global Center for Entrepreneurship and Innovation, and the Center for International Business Education and Research.

Degree Programs

Through its Landon Undergraduate School, the College of Business Administration (CBA) offers academic programs leading to the undergraduate degrees of Bachelor of Business Administration (BBA) and Bachelor of Accounting (BAcc). Through its Chapman Graduate School, CBA offers graduate degrees of Master of Accounting (MAcc), Master of Business Administration (MBA), Master of International Business (MIB), Master of Science in Finance (MSF), Master of Science in Management with a track in Information Systems (MSMIS), Master of Science in Taxation (MST), Executive Master of Science in Taxation (EMST), Master of Science in Human Resources Management (MSHRM), and Doctor of Philosophy in Business Administration (Ph.D.).

R. Kirk Landon Undergraduate School of Business

Undergraduate Degree Programs

BBA+ Programs

In addition to traditional academic programs leading to the undergraduate degrees of Bachelor of Business Administration (BBA) and Bachelor of Accounting (BAcc) the College offers two innovative undergraduate programs that enable students to pursue their career full-time. These programs, referred to as the BBA+ Weekend program and the BBA+ Sunrise program, consist of a series of lock-step courses that lead to a Bachelor of Business Administration (B.B.A.) degree with a Management major in a concentrated time span. Each class admitted to either program proceeds through the curriculum as a group. Students in the BBA+ Weekend Program attend classes on Saturday only and complete their degree requirements in 21 months. Students in the BBA+ Sunrise Program attend early-morning, 90-minute classes three times per week followed by extensive use of online learning. This technology-assisted learning enables students in this program to complete their degree requirements in 18 months. Both BBA+ programs charge tuition plus additional fees for value-added services and are limited to a select number of students. For additional information, please contact the program manager (305) 348-4052, email: bbaplus@fiu.edu or visit http://bbaplus.fiu.edu.

Undergraduate Majors

Major programs leading to the Bachelor's degree are offered in Accounting, Finance, International Business, Management, Human Resource Management, Management Information Systems, Marketing, and Real Estate. Also offered is an entrepreneurship track and business environment track within the Management major.

Students are encouraged to visit the undergraduate students services website for additional information and assistance: http://business.fiu.edu.

Undergraduate Minors

The College offers several minors for undergraduate, non-business students: a minor in Business, a minor in Marketing, and a minor in Entrepreneurship.

For admission to the minor, students need to be fully admitted to their major in another college and must have a 2.35 GPA. Business majors are not eligible for a minor.

Students opting for a minor in business must complete the following five courses at Florida International University (15 credit-hours):

ACG 3024	Accounting for Managers and Investors
FIN 3140	Personal Financial Management
MAR 3023	Marketing Management
MAN 3025	Organization and Management
CGS 3300	Introduction to Information Systems

The minor in Entrepreneurship is discussed in the "Management and International Business" section of this catalog; the minor in Marketing is discussed in the "Marketing" section of this catalog.

Undergraduate Degree Programs

Admission Requirements

Applicants to the College of Business Adminstration must submit an Application for Admission to the University and follow regular University admission procedures. Applicants must meet the University's requirements for admission before being eligible for admission to the College.

To be eligible for acceptance into an undergraduate program in the College of Business Administration, students must have:

1. Completed 60 semester hours of course work or have completed the Associate in Arts degree or its equivalent;
2. Satisfied general University requirements for admission, including, the University's Core Curriculum requirements.
3. Met the University's lower division requirements, including CLAST;
4. Completed five of the seven precore courses or their equivalent.
5. Achieved a minimum grade point average of 2.35 (2.35 for Accounting majors) or higher. Upper level business courses taken are not included in this GPA computation;
6. If applicant is an international student whose native language is not English, have achieved a minimum score of 500 on the paper-based TOEFL, 173 on the computer-based TOEFL. [International applicants should study the "General Admission" requirements for foreign students in the "Admissions" section of this catalog.]

If a student has a GPA of 2.35 or higher and is deficient in no more than six semester hours of University Core Curriculum requirements, he/she may be accepted into a College undergraduate program with the provision that he/she complete all lower-division deficiencies within two semesters of acceptance. Accounting majors must have a 2.50 GPA or higher and must have all University Core Curriculum requirements met.

In addition, students who expect to earn a Bachelor's degree in the College within the equivalent of two years should have completed the following as part of the 60 semester hours of lower-division course work: six credit-hours of accounting; six credit-hours of economics; four credit-hours of calculus; three credit-hours of business statistics; and three credit-hours of computer applications.

Readmission

Students who have been admitted into an undergraduate program in the College, but who have not enrolled in any course at the University for four

consecutive semesters (including summer) must complete an application for readmission. Students eligible for readmission are subject to the University's and the College's degree program's regulations in effect at the time of readmission.

Program of Study

Once accepted into an undergraduate program in the College, students must complete a formal "Program of Study" before the end of their first semester of course work. To make a program counseling appointment, students with majors outside of Accounting should call the College's Advising Service for an appointment—(305) 348-2781 in University Park or (305) 919-5870 in the Biscayne Bay Campus.

During these appointments, the College's advisors will help students complete their formal "Program of Study." Any questions about course work and degree requirements will be resolved in establishing this official "Program of Study." If, for some reason, a student has not established an official "Program of Study" at least two semesters before he/she expects to graduate, he/she will no longer be permitted to register for classes.

Upper-division Transfer

Students may be able to transfer previously-earned credit towards upper-division study in the College if 1) the credit was designated as junior or senior level at an accredited, four-year, upper-level institution, and 2) the student earned a grade of "C" or higher, or the credit can be validated by some acceptable measure to verify its equivalence. Students wishing to transfer to the college must be in good standing at their previous school or college.

Change of Major

Students who wish to change from a major in another college or school within the university to a new major within the College of Business Administration must meet the degree requirements in effect at the time of the change of major.

Computer Literacy Requirement

Before students can enroll in CGS 3300 (or ACG 4401), they must demonstrate computer literacy proficiency. They can meet this requirement by doing any one of the following: 1) successfully completing a lower-division computer programming course; 2) successfully completing CGS 2100 – Introduction to Micro-computers; or 3) providing employer verification of relevant work experience.

Residency Requirement

Students must complete the last 30 semester hours of course work at the University to qualify for an undergraduate degree.

Study-Abroad Programs

The maximum number of credit-hours allowed to undergraduate students for participating in a study-abroad program is six (6).

Additional Policies

Undergraduate students majoring in subjects outside the College of Business will not be permitted to apply more than 30 semester hours of business courses toward their degree.

Undergraduate students who register for any graduate business course must be formally admitted to a graduate degree program at the university following the university's admission procedures.

Faculty have the discretion to administratively drop students who do not attend the first class of a course.

Undergraduate Degree Program Requirements

In general, students who can earn a bachelor's degree from the College of Business Administration will have completed professional work that includes:

1. Pre-core courses as necessary;
2. Required courses designed to provide students with a common body of knowledge that includes:
    a. Concepts and processes in the production, financing and marketing of goods and services in a business enterprise or organization, both domestically and internationally;
    b. The economic and legal environments of and the ethical, social, and political influences on profit and non-profit organizations;
    c. Concepts and applications in accounting, quantitative methods, computers and management information systems;
    d. Organizational theory and behavior and interpersonal communication;
    e. Administrative and decision-making processes in climates of uncertainty, including policy analysis at the highest management levels.
3. Required courses in major;
4. Approved elective courses.

Academic Standards

To earn an undergraduate degree from the College of Business Administration, all students must:

1. Earn a grade of "C" or higher in all major courses and in core courses within their major area of study.
2. Satisfy the requirements of their respective programs of study and satisfy all university requirements for graduation.

The College adheres strictly to the university's dismissal policy.

Students should be sure to read and understand Florida International University's policies regarding "Academic Warnings, Probation, and Dismissals" as described in the "General Information" section of this catalog. These policies apply to all students in the College of Business Adminstration.

In addition to satisfying the degree requirements specified in the university's "General Information" section of the catalog, students in the College of Business Administration must have completed the following course work:

Pre-Core Courses (3 credit-hours each)

ACG 2021	Accounting for Decisions
ACG 3301	Accounting for Planning and Control
CGS 2100	Microcomputer Applications
ECO 2013	Principles of Macroeconomics
ECO 2023	Principles of Microeconomics
STA 2023	Statistics for Business and Economics
MAC 2233	Calculus for Business and Economics

The courses listed above will be waived if a student received a grade of "C" or higher in the appropriate lower-division courses. However, upper-division credit will not be given for these courses. Students should see a college advisor to determine whether or not these courses should be added to their program of study.

Business Core Courses (30 Credit-hours)

The business core courses listed below are required for all undergraduate students in the College of Business Administration. Listed with them are the prerequisites (where applicable) for each of the business core courses.

CGS 3300	Introduction to Information Systems* *Prereq: CGS 2060 or CGS 2100*	3
COM 3110	Business and Professional Communication	3
BUL 4310	Legal Environment of Business* *Prereq: Full admission to the College*	3
ECO 3202	Applied Macro Economics *Prereq: ECO 2013 or ECO 3011*	3
FIN 3403	Financial Management *Prereq: STA 2023 and ACG 2021 or its equivalent*	3
MAN 3025	Organization and Management	3
MAN 4504	Operations Management *Prereq: QMB 3200*	3
MAN 4722	Strategic Management *Prereq: Senior Standing; full admission to the college*	3
MAR 3023	Marketing Management	3
QMB 3200	Applications of Quantitative Methods in Business *Prereq: STA 2023 or its equivalent, CGS 3300, or ACG 4401, and College Algebra*	3

*These courses should not be taken by students majoring in Accounting. Instead, Accounting majors must take ACG 4401 Accounting Information Systems and BUL 4320 Business Law.

Prerequisite Requirements

Prerequisite course requirements for entry into upper level courses will be enforced. Students will be adminstratively dropped from courses when they lack the required prerequisite course or courses. With the implementation of Panthersoft, the College will begin enforcing prerequisites at the time of registration.

Note: The programs, policies, requirements, and regulations listed in this catalog are subject to continual review in order to meet the needs of the University's various publics and to respond to the mandates of the Florida Board of Education and the Florida Legislature. Changes may be made without advance notice. Please refer to the "General Information" section of this catalog for the university's policies, requirements, and regulations.

School of Accounting

Sharon Lassar, *Associate Professor and Director*
Abhijit Barua, *Assistant Professor*
Lucia Chang, *Professor Emeritus*
Yunhao Chen, *Assistant Professor*
Lewis F. Davidson, *Professor and Faculty Director, MACC Program*
Renu Desai, *Assistant Professor*
Manuel Dieguez, *Instructor and Associate Director*
Mort Dittenhoffer, *Professor Emeritus*
Wendy Gelman, *Instructor*
C. Delano Gray, *Instructor*
Cherie J. Hennig, *Professor and Faculty Director, EMST Program*
Kenneth Henry, *Lecturer*
Stephen W. Lin, *Associate Professor*
Antoinette Lynch, *Assistant Professor*
Adam Maiga, *Assistant Professor*
Kenneth S. Most, *Professor Emeritus*
Felix Pomeranz, *Professor Emeritus*
Kannan Raghunandan, *Professor and Ryder Eminent Scholar Chair in Business Leadership*
Dasaratha V. Rama, *Professor and Knight Ridder Center Research Professor*
Leonardo Rodriguez, *Professor Emeritus and Faculty Director, MACC-ITAM Program*
Andrew Sbaraglia, *Visiting Assistant Professor*
Divesh Sharma, *Associate Professor*
Vineeta Sharma, *Visiting Assistant Professor*
Krishnamurthy Surysekar, *Associate Professor*
Steve Vogel, *Visiting Instructor*
Clark Wheatley, *Associate Professor, Faculty Director Professional MBA Program and SunTrust Professorship*
John Wrieden, *Distinguished Senior Lecturer*

Participating Adjunct Faculty
John Cox
Charles Goldman

Purpose

Our mission as a School of Accounting in an internationally-focused public research university is to:

- Foster an environment of intellectual curiosity, diversity of thought, and integrity;
- Provide a diverse student body with excellence in accounting education in order to succeed as business professionals and leaders as well as valued members of society;
- Prepare students for advancement in the accounting profession through specialized masters programs that strengthen professional competencies;
- Serve the academic community through scholarly research, colloquia, and the training of future accounting educators;
- Promote opportunities for professional development, lifelong learning and networking for our alumni and accounting professionals in the local, national and global community.

Bachelor of Accounting (BACC)

The objective of the BACC program is to prepare students for positions in public, private sector, corporate, and governmental accounting. To qualify for positions in public accounting, students must take the CPA examination, which, in Florida, requires an additional 30 credit-hours beyond the BACC degree.

The Bachelor of Accounting program also prepares students to pursue advanced degrees in accounting, business, or law.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	30 hours
Accounting Major	27 hours
Electives	3 hours

Lower Division/Pre-Core

The "General Information" section in this catalog describes the lower division requirements. The Business Pre-Core requirements are listed in the first section of this "College of Business Administration" chapter. Students must complete all lower division and Business Pre-core requirements no later than the first semester of their third year of undergraduate study.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this "College of Business Administration" chapter.

Accounting Major Requirements

ACG 4101	Financial Accounting I
ACG 4111	Financial Accounting II
ACG 4201	Financial Accounting III
ACG 4341	Management Accounting
TAX 4001	Income Tax Accounting

Specializations: (6 hours)
Public Accounting:

ACG 4501	Governmental and Institutional Accounting
ACG 4651	Auditing

or
Non-Public Accounting

ACG 4501	Governmental and Institutional Accounting
ACG 4353	Advanced Management Accounting

or

ACG 4353	Advanced Management Accounting
ACG 4311	Applied Accounting Concepts

and
Accounting Electives (6 hours) and upper division elective (3 hours)

All accounting courses must be taken at Florida International University; courses from other universities are not transferable unless approved in advance by the Director of the School of Accounting.

Academic Standards and Policies

1. Students must earn a minimum grade of 'C' in all 4000-level accounting, business law, and tax courses.
2. Students not achieving a grade of 'C' or better in two enrollments in any course will be dropped automatically from the Accounting program. In extenuating circumstances, students may be able to continue in the program after filing a written appeal to the Continuation and Retention Committee. Appeals should be addressed to the Director, School of Accounting. A student may have no more than three re-enrollments.

3. Students who wish to take more than two accounting and tax courses in one semester must file a formal request to do so with the Continuation and Retention Committee.
4. Prerequisites for all accounting and tax courses are strictly enforced.
5. The course, ACG 4101 Financial Accounting I, requires successful completion of an entrance exam as a prerequisite: Students may take the entrance exam no more than three times. Students who fail to pass the exam after three attempts will be required to seek another major outside the School of Accounting.
6. Students taking accounting and tax courses are expected to seek counsel from Accounting advisors before registering.
7. Students who work more than 20 hours per week are urged to discuss the composition of their schedule and number of courses they should take with an Accounting advisor before registering.

Decision Sciences and Information Systems

Christos P. Koulamas, *Professor and Chair, Ryder Eminent Scholar Chair in Management Information Systems*
Dinesh Batra, *Professor*
Irma Becerra Fernandez, *Associate Professor and Faculty Director, MSMIS Program and Knight Ridder Center Research Professor*
Susan Clemmons, *Visiting Assistant Professor*
Karlene Cousins, *Assistant Professor*
Stylianos Drakatos, *Lecturer*
Kaushik Dutta, *Assistant Professor*
Joyce J. Elam, *Professor, James L. Knight Eminent Scholar Chair in Management Information Systems, and Executive Dean*
S. Christopher Ellis, *Instructor*
Sushil K. Gupta, *Professor*
Faisal Kaleem, *Lecturer*
Gerard Klonarides, *Lecturer*
Kuldeep Kumar, *Professor*
George J. Kyparisis, *Professor and Knight Ridder Center Research Professor*
Ronald M. Lee, *Professor*
Iris Mack, *Instructor*
Tomislav Mandakovic, *Professor and Associate Dean of the Alvah H. Chapman, Jr., Graduate School of Business and Faculty Director, Downtown MBA and Master of International Business and Evening MBA Program*
Manoel Oliveira, *Instructor and Director of Technology*
Dasaratha V. Rama, *Professor and Knight Ridder Center Research Professor*
Larry A. Smith, *Associate Professor*
Monica Tremblay, *Assistant Professor*
Debra Vander Meer, *Assistant Professor*
Nicole Wishart, *Instructor*
Weidong Xia, *Assistant Professor*
Steve H. Zanakis, *Professor*

Participating Adjunct Faculty
Geraldine Klonarides

Purpose

The purpose of the Department of Decision Sciences and Information Systems is to provide students with the knowledge and ability to design, develop, and implement information systems that will help enterprises solve their problems effectively. Students will be given a solid foundation in the design, use, and management of databases, enterprise systems, telecommunications technology, information security, and electronic commerce systems. The department offers courses in management information systems, management science, and production and operations management, and business statistics at both the graduate and undergraduate levels.

Management Information Systems Major

Undergraduate business students can opt to major in Management Information Systems (MIS). This major provides students with the background they need to give informational support for decision-making, design databases and systems including electronic commerce systems and data communications systems, and understand the project management aspects in organizations.

Graduates will be prepared for entry-level positions in MIS, either in user- or system-oriented departments.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	30 hours
Major Courses	24 hours
Business Electives	6 hours

Lower Division/ Business Pre-Core

The "General Information" section in this catalog describes the lower division requirements. The Business Pre-Core requirements are listed in the first section of this "College of Business Administration" chapter. Students must complete all lower division and Business Pre-Core requirements no later than the first semester of their third year of undergraduate study.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this "College of Business Administration" chapter.

Major Courses (3 credit-hours each)

ISM 3153	Enterprise Information Systems
ISM 4400	Management Support Systems
ISM 4220	Business Data Communications
ISM 4210	Data Base Applications
ISM 4054	Introduction to Web Management
ISM 4113	Systems Analysis and Design
ISM 4151	Systems Management
ISM 4323	Information Security Management

Business Electives

Students may take two business electives among the following courses:

ISM 4340	Organizational Impacts
ISM 4949	Cooperative Education in MIS II

or

Additional courses offered by the department

or

Business courses after obtaining approval from the department

Academic Standard

The Department of Decision Sciences and Information Systems requires that students receive a grade of "C" or higher in all major courses, and a passing grade in business electives in order to remain in the degree program.

Finance and Real Estate

William Welch, *Associate Professor and Chair*
Gary Anderson, *Associate Professor*
Joel Barber, *Associate Professor*
Paul Black, *Visiting Instructor*
Deanne Butchey, *Instructor*
Chun-Hao Chang, *Associate Professor and Faculty Director, MSF Program, Pines*
Robert T. Daigler, *Professor and Knight Ridder Center Research Professor*
Krishnan Dandapani, *Professor*
Brice Dupoyet, *Assistant Professor*
Shahid Hamid, *Professor and Faculty Director, MSF Program, University Park*
William Hardin, *Associate Professor of Finance and Real Estate and Director of Real Estate Program and Faculty Director, MS in International Real Estate and Knight Ridder Center Research Professor*
Xiaoquan Jiang, *Assistant Professor*
Ken H. Johnson, *Assistant Professor*
Constantine (Gus) Kalogeras, *Visiting Professor*
James Keys, *Instructor*
Edward Lawrence, *Assistant Professor*
Andrew McCosh, *Professor and Alvah H. Chapman, Jr. Eminent Scholar Chair in Management Ethics*
Suchismita Mishra, *Assistant Professor*
Raul Moncarz, *Professor Emeritus*
Ali M. Parhizgari, *Professor and Ingersoll Rand Professorship in International Business*
Arun Prakash, *Professor and Knight Ridder Center Research Professor*
Emmanuel Roussakis, *Clinical Professor and Faculty Director, MSF Program, Downtown*
Helen Simon, *Instructor*
Zhonghua Wu, *Assistant Professor*
John S. Zdanowicz, *Professor and Director, Jerome Bain Real Estate Institute*

Participating Adjunct Faculty
Marcos Kerbel
Badi Sabet

Purpose

The Department of Finance seeks to provide students with solid theoretical and practical knowledge in the areas of banking, corporate finance, investments, portfolio management, financial risk management, financial engineering, financial institutions, markets, and international finance.

The Department of Finance and Real Estate also offers an undergraduate major in Real Estate. Real Estate students are provided with a comprehensive exposure to the real estate industry with an emphasis on international real estate, the quantification of real estate decisions, the financing of real estate, and the financial markets that support real estate activities. Many students combine both real estate and finance majors by earning a double major in real estate and finance.

Finance Major

Undergraduate business students can opt to pursue a Finance major. Those who do so graduate prepared to enter positions in corporations, financial institutions, brokerage firms, investment banks, and government. They also are prepared for post-graduate studies in all areas of business.

Finance Major Learning Objectives

1. Identify the functions of financial markets and institutions and examine their impact on the level of interest rates and interest rate differentials.
2. Investigate advanced time value of money concepts and extend these concepts to mortgage mathematics, commercial mathematics, and capital budgeting.
3. Explore the international integration of financial markets and analyze implications for financial managers.
4. Examine the nature of the commercial banking business. Ascertain the measures of bank return and risk performance and how they are applied to bank valuation decisions and management performance assessment.
5. Identify and analyze derivative instruments and strategies used by investors and corporations to hedge financial risks. Emphasis will be placed on identification of financial risk and designing optimal risk management strategies.
6. Determine and analyze the appropriate measures of risk and return for various financial instruments. Understand the mechanics and regulation of financial securities exchanges.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	30 hours
Major Courses	21 hours
Upper Division Electives	9 hours

Lower Division/Pre-Business Core

The "General Information" section in this catalog describes the lower division requirements. The Business Pre-Core requirements are listed in the first section of this "College of Business Administration" chapter. Students must complete all lower division and Business Pre-Core requirements no later than the first semester of their third year of undergraduate study.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this College of Business Administration chapter.

Major Courses (3 credit-hours each)

FIN 3424	Intermediate Finance
FIN 4324	Commercial Bank Management
FIN 4502	Securities Analysis
FIN 4486	Financial Risk Management – Financal Engineering
FIN 4303	Financial Markets and Institutions
FIN 4604	International Finance
	or
FIN 4615	International Banking
FIN xxxx	Finance Elective
	or
REE xxxx	Real Estate Elective

Real Estate Major

Undergraduate business students can opt to pursue a Real Estate major. Students graduating with a degree in

real estate are prepared to work in various positions with financial institutions, commercial brokerage firms, mortgage companies, investment management entities, appraisal firms, property management companies, and residential brokerage firms. Some students opt for entrepreneurial activities associated with the investment in and management of real property.

Real Estate Major Learning Objectives

1. Develop a conceptual understanding of the functions of real estate markets, real estate practices, and real estate institutions.
2. Familiarize students with the nature of the legal environment of real estate.
3. Appraise the real estate development opportunities in the commercial real estate markets for residential, warehouse, retail, and industrial properties.
4. Develop student's analytical skills to solve specific problems or issues related to the analysis or real estate financing alternatives.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	30 hours
Major Courses	21 hours
Upper Division	9 hours

Lower Division/Pre-Business Core

The "General Information" section in this catalog describes the lower division requirements. The Business Pre-Core requirements are listed in the first section of this "College of Business Administration" chapter. Students must complete all lower division and Business Pre-Core requirements no later than the first semester of their third year of undergraduate study.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this "College of Business Administration" chapter.

Major Courses (3 credit-hours each)

REE 3043	Real Estate Principles
REE 4204	Real Estate Finance
REE 4303	Real Estate Investment
REE 4433	Legal Environment of Real Estate
REE 4956	International Real Estate

Electives (Select any 2)

3000/4000	REE or CBA Course
3000/4000	REE or CBA Course
BCN 3002	Principles of Construction Management
BCN 3762	Building Codes and Quality Control

Academic Standard

The Department of Finance and Real Estate requires that students receive a grade of "C" or higher in all finance and real estate major courses in order to remain in the degree program.

Certificate in Banking (CIB)

The Certificate in Banking is designed for practicing bank managers and bank employees, as well as those who simply want to earn a Certificate with or without also pursuing an academic degree. The core program consists of four undergraduate Finance courses. Students who receive a grade of "C" or higher in all courses, both prerequisite and core, will have earned and will be presented with a Certificate in Banking.

Prerequisites: FIN3403 (Financial Management), ACG 2021 (Accounting for Decisions), and ECO 2013 (Principles of Macro Economics), in addition to a minimum GPA of 2.5.

1. FIN 4486 Financial Risk Management-Financial Engineering: A survey of financial instruments used for financial risk management, including forwards, futures, options, and swaps. Emphasis is on identification of financial risks and designing optimal risk management program.
2. FIN 4303 Financial Markets and Institutions: Financial markets and the role of financial intermediaries in these markets. Emphasis will be upon the objectives and policies of financial intermediaries within the constraints of law and regulatory authorities.
3. FIN 4324 Commerical Bank Management: The management of bank assets and liabilities; specialized banking, functions; and the role of the commercial bank in financing business.
4. FIN 4345 Credit Analysis and Loan Evaluation: Topics to include: introduction to commercial lending; secured lending; accounts receivable financing and factoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants; subordinations and guarantees; foreign exchange; international transactions and leasing.

Certificate in International Bank Management (CIBM)

The Certificate in International Bank Management is designed to train current and future bankers in the field of international banking policies and practices. It provides current banking professionals with an understanding of the interrelationships between domestic and international banking. The core program consists of four undergraduate Finance courses. Students who receive a grade of "C" or higher in all courses, both prerequisite and core, will have earned and will be presented with a Certificate in International Bank Management.

Prerequisites: FIN 3403 (Financial Management), ACG 2021 (Accounting for Decisions), and ECO 2013 (Principles of Macro Economics), in addition to a minimum GPA of 2.5.

1. FIN 4486 Financial Risk Management-Financial Engineering: A survey of financial instruments used for financial risk management, including forwards, futures, options, and swaps. Emphasis is on identification of financial risks and designing optimal risk management program.
2. FIN 4604 International Financial Management: Capital budgeting operational analysis and financial decisions in the multinational context. Working capital management and intrafirm fund transfers. Measurement and evaluation of the risk of internationally diversified assets.
3. FIN 4615 International Banking: Introductory survey of issues that deal with international aspects of banking. The course provides an overview ot the structure and operation of the international banking function, the

services offered, supporting documentation, and measures to improve the efficiency and effectiveness of the international banking organization. The purpose of the course is to acquaint the students with the daily activities in international banking.

4. FIN 4324 Commerical Bank Management: The management of bank assets and liabilities; specialized banking, functions; and the role of the commercial bank in financing business.

or

FIN 4345 Credit Analysis and Loan Evaluation: Topics to include: introduction to commercial lending; secured lending; accounts receiveable financing and factoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants; subordinations and guarantees; foreign exchange; international transactions and leasing.

Management and International Business

K. Galen Kroeck, *Professor and Chair and Faculty Director, MSHRM Program, Jamaica*
Sungu Armagan, *Assistant Professor*
Meredith Burnett, *Assistant Professor*
Natarajan Balasubramanian, *Assistant Professor*
Constance S. Bates, *Associate Professor*
Alan Carsrud, *Clinical Professor and Director, Eugenio Pino and Family Global Entrepreneurship Center*
Aya Chacar, *Assistant Professor*
Changwha (Chris) Chung, *Assistant Professor*
Linda Clarke, *Visiting Instructor*
Jose de la Torre, *Professor and Knight Ridder J.K. Batten Eminent Scholar Chair in Strategy, Dean of the Alvah H. Chapman, Jr., Graduate School of Business*
Gary Dessler, *Clinical Professor*
Dana L. Farrow, *Professor and Faculty Director to the International MBA Program*
G. Ronald Gilbert, *Clinical Professor*
Carolina Gomez, *Associate Professor*
Doreen Gooden, *Visiting Instructor*
Jerry Haar, *Clinical Professor and Associate Director Knight Ridder Center for Excellence in Management and Faculty Director of the International Business Honors Program*
Robert Hogner, *Associate Professor*
Sumit Kundu, *Professor, Faculty Director to the Executive MBA Program and Knight Ridder Center Research Professor*
Karl O. Magnusen, *Professor Emeritus*
Modesto A. Maidique, *Professor and President of Florida International University*
J. Randall Martin, *Lecturer and Coordinator of Study Abroad Programs*
William Newburry, *Assistant Professor*
Karen Paul, *Professor*
Clifford R. Perry, *Distinguished Executive Professor, Knight-Ridder Research Fellow, and Associate Dean of the College of Business Administration*
Paul Reynolds, *Visiting Distinguished Professor of Entrepreneurship*
Leonardo Rodriguez, *Professor Emeritus*
Donald Roomes, *Instructor and Faculty Director, BBA + Weekend and BBA + Sunrise and International MBA Jamaica*
Juan Sanchez, *Professor and Knight Ridder Byron Harless Eminent Scholar Chair in Management*
William Schneper, *Assistant Professor*
Philip Shepherd, *Associate Professor*
Ronnie Silverblatt, *Associate Professor*
Deborah Vidaver-Cohen, *Associate Professor*
Mary Ann Von Glinow, *Professor and Director of the Center for Business Education and Research (CIBER) and Faculty Director MS Human Resource Program and Knight Ridder Eminent Scholar Chair in International Management*
David Wernick, *Lecturer*

Participating Adjunct Faculty

Mernoush Banton
Kevin W. Brown
John Kleban
Louis Melbourne
Martin C. Luytjes
Juan Pujol
Kaihan Krippendorff
Mary Leckband
Nancy Powell
Robert Soloff, PA
Horace Williams
David Wilson
Andrew Yap

Purpose

The Department of Management and International Business seeks to provide undergraduate students with courses that emphasize the most current knowledge in the profession. A dedicated faculty with expertise in strategic management, change management, human resource management, organizational behavior and international business prepares our students for successful management careers in the global business arena. Our graduates are armed with a clear understanding of the management field, a broad intellectual framework for managing in an the evolving marketplace, the ability to lead and work within teams, computer literacy, and solid communication skills.

Management Major

Undergraduate students can select a general Management Major, a Human Resource Management Major, an International Business Major, a Management Major with an Entrepreneurship Track or a Management Major with a Business Environment Track.

The Department also offers internship opportunities to undergraduate students through the University's Career Services Office (GC 230). To qualify for academic credit in these activities, students must have a 2.75 GPA, junior or senior standing, and approval from the Department Chair.

For more information, please visit our departmental webpage: http://management.fiu.edu.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	30 hours
Major Courses	21 hours
Upper Division Electives	9 hours

Lower Division/Pre-Business Core

The "General Information" section in this catalog describes the lower division requirements. The Business Pre-Core requirements are listed in the first section of this "College of Business Administration" chapter. Students must complete all lower division and Business Pre-Core requirements no later than the first semester of their third year of undergraduate study.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this "College of Business Administration" chapter.

Major Courses (3 credit-hours each)

Students should note that not all courses with a MAN prefix are actually management courses. Therefore, they should consult with a College advisor to confirm that their program of study reflects the degree requirements.

This major is designed for students interested in a general management major, with additional tracks in Business Environment and Entrepreneurship. To fulfill this major, students must meet their basic requirements of 60 hours of Lower Division credit-hours of Business Core courses. They must take the following:

1. **General Management**: All required
   MAN 3025 Management and Organization
   MAN 4151 Organizational Behavior
   MAN 4722 Strategic Management
2. **Professional Responsibility**: One of the following is required
   MAN 4065 Business Ethics
   MAN 4102 Managing Diversity
   MAN 4701 Business in Society
   MAN 4707 Managing Organizational Reputation
   MAN 4711 Business-Community Leadership
3. **International Business**: One course required
   MAN 4602 International Business
4. **Human Resources:** One course required
   MAN 4301 Human Resource Management
5. **Business Management:** One course required
   GEB 4113 Entrepreneurship
   MAN 4600 International Management
   MAN 4802 Small Business Management
   MAN 4864 Family Owned Business
6. **Electives**: Two (2) additional 4000 level courses are required. Courses must be chosen from the list below. Courses taken to satisfy the requirements listed in #2 or #5 above can not be used to satisfy this requirement:
   GEB 4113 Entrepreneurship
   MAN 4064 Crisis Management
   MAN 4065 Business Ethics
   MAN 4102 Managing Diversity
   MAN 4120 Intergroup Relations in Organizations
   MAN 4142 Intuition in Management
   MAN 4320 Recruitment and Staffing
   MAN 4322 Human Resource Information Systems
   MAN 4330 Compensation and Benefits
   MAN 4350 Training and Development
   MAN 4401 Collective Bargaining
   MAN 4410 Union-Management Relations
   MAN 4660 Business in Latin America
   MAN 4610 International Human Resources
   MAN 4629 International Business Internship
   MAN 4633 MNC Strategy Simulation
   MAN 4701 Business in Society
   MAN 4707 Managing Organizational Reputation
   MAN 4711 Business-Community Leadership
   MAN 4731 Modern Business History
   MAN 4741 Managing Change in Organizations
   MAN 4802 Small Business Management
   MAN 4864 Family Owned Business
   MAN 4949 Management Internship II
   MAN 4956 Study Aboard in International Business
   MAN 4294 Creativity and Innovation
   MAN 4164 Leadership
   MAN 4054 Managing Innovation

Human Resource Management

Degree Program Requirements (120 credit-hours)

This major is designed for students interested in human resource management. To fulfill this major, students must meet their basic requirements of 60 hours of Lower Division credit-hours and 30 credit-hours of Business Core courses and 9 credit hours of upper division electives. In addition, they must take 21 credits as follows:

MAN 4301 Human Resource Management
MAN 4320 Recruitment and Staffing
MAN 4322 Human Resource Information Systems
MAN 4330 Compensation and Benefits
MAN 4350 Training and Development
PLUS
Either:
MAN 4402 Collective Bargaining
or
MAN 4410 Union-Management Relations
PLUS
MAN 4102 Managing Diversity
or
BUL 4540 Employment Law
or
MAN 4610 International Human Resources

International Business

Degree Program Requirements (120 credit-hours)

This major provides students with an intensive, in-depth study of the international dimensions of business. To fulfill this major, students must meet their basic requirements of 60 hours of Lower Division credit-hours and 30 credit-hours of Business Core courses and 9 hours of upper division electives.

For more information, please visit our departmental webpage at http://ib.fiu.edu.

Students must take 21 credit-hours in their major from the following list:

Required Courses

MAN 4602 International Business
FIN 4604 International Finance
MAN 4600 International Management
MAR 4156 International Marketing
AND
Either:
ACG 4215 International Accounting
or
MAN 4633 MNC Strategy Simulation
PLUS
Either:
Two elective courses (6 credit-hours) from the electives list below.
or
One elective course (3 credit-hours) and one area studies course (3 credit-hours) (listed below):

Electives:

FIN 4614 International Capital Markets
FIN 4615 International Banking
MAN 4610 International Human Resources
MAN 4613 International Risk Assessment
MAR 4144 Export Marketing
MAN 4442 International Business Negotiations
MAN 4673 Trade Policy and Business
MAN 4712 IB Business-Government Relations
MAN 4672 IB Regulation and Ethics
GEB 4364 International Entrepreneurship
REE 4956 International Real Estate
MAN 4203 Leadership in Multilateral Institutions
TRA 4721 Global Logistics

Area Studies:

MAN 4660 Business in Latin America
MAN 4xxx Business in the Caribbean

MAN 4662	Business in Europe
MAN 4661	Business in Asia
MAN 4671	Special Topics in Internataional Business
MAN 4956	International Business Study Abroad
MAN 4629	International Business Internship
FIN 4651	Latin American Financial Markets and Institutions

International Business Honors Program

The undergraduate International Business Honors program engages high-performing, demanding and motivated students in a highly innovative and challenging learning community. With a unique combination of business courses, regional studies courses and a foundation in the humanities supported by the Honors College, the International Business Honors program students are in a position to master the skills needed to make a mark in today's ultra competitive and quickly evolving global business world.

Students in the International Business Honors program must seek admission to the Honors College (www.fiu.edu/~ibhonors) and declare at the College of Business Administration that they wish to major in International Business Honors. The program emphasizes the development of critical thinking and writing abilities not only through traditional coursework, but also through providing a rich learning environment based on interaction with global business managers and leaders, study abroad and internship opportunities, and a senior year writing project. Upon completion of degree requirements (see www.fiu.edu/~ibhonors), students will receive a BBA degree in International Business with Honors.

Students interested in participating in the International Business Honors program should contact the program's director at (305) 348-2387, or consult the program's web stie at www.fiu.edu/~ibhonors.

Entrepreneurship Programs

The Eugenio Pino and Family Global Entrepreneurship Center, founded in 2003 at Florida International University, facilitates all entrepreneurial activities at FIU, which includes academic programs. The Center's programs provide campus-wide awareness of entrepreneurship as an approach to life that enhances and transcends traditional academic experiences. It is woven into the fabric of FIU through activities and courses across the university.

The multi-dimensional nature of the program allows it to address the unique entrepreneurial needs of one of the nation's largest ethnically diverse academic institutions, located in one of America's most entrepreneurial and dynamic international cities, Miami.

Whether in the arts, sciences, business, engineering, or humanities, entrepreneurship at FIU adds value to every discipline and enhances the creativity and innovation of student, faculty, staff, and alumni. The Center encourages all majors to enroll in entrepreneurship courses.

Entrepreneurship Track

The Entrepreneurship Track is designed for business students interested in developing new business initiatives and in acquiring self-reliance in the business world.

Students must take seven of the following courses (21 credit-hours) with a minimum grade of "C":

GEB 4113	Entrepreneurship
GEB 4110	Business Plan Development

PLUS five of the following courses (15 credit-hours):

AMH 4373	Entrepreneurs in the US
AMH 4375	Technology and American Society
GEB 4117	Product Development and Innovation
GEB 4364	International Entrepreneurship
GEB 4414	Social & Nonprofit Entrepreneurship
GEB 4932	Professional Development Module
HFT 4292C	Entrepreneurship in Hospitality & Tourism
MAN 4142	Intuition in Management
MAN 4802	Small Business Management
MAN 4864	Family-Owned Businesses
MAR 4025	Marketing of Small Business Enterprises

Business Environment Track

Students must take seven of the following courses (21 credit-hours):

MAN 4151	Organizational Behavior
MAN 4301	Human Resource Management
MAN 4602	International Business
MAN 4701	Business in Society
MAN 4064	Crisis Management
MAN 4711	Business-Community Leadership
MAN 4741	Managing Change in Organizations
MAN 4065	Business Ethics
MAN 4028	Community Service Program Management
MAN 4702	Emergency and Disaster Management
MAN 4742	Environmental Management

Entrepreneurship Minor for Non-Business Students

Non-business students wishing to earn a minor in Entrepreneurship must complete five of the following courses (15 credit-hours) with a minimum grade of "C":

GEB 4113	Entrepreneurship (or cross-listed course)
GEB 4110	Business Plan Development (or cross-listed course)

PLUS three of the following courses (9 credit-hours):

ACG 3024	Accounting for Managers and Investors
AMH 4373	Entrepreneurs in the US
AMH 4375	Technology and American Society
GEB 4117	Product Development and Innovation (or cross-listed course)
GEB 4364	International Entrepreneurship
GEB 4414	Social & Nonprofit Entrepreneurship
GEB 4932	Professional Development Module
HFT 4292C	Entrepreneurship in Hospitality & Tourism
MAN 4142	Intuition in Management (or cross-listed course)
MAN 4802	Small Business Management
MAN 4864	Family-Owned Businesses
MAR 4025	Marketing of Small Business Enterprises

Entrepreneurship Certificate

Non-business students wishing to earn a certificate in entrepreneurship must complete six of the following courses (18 credit-hours) with a minimum grade of "C":

GEB 4113	Entrepreneurship (or cross-listed course)

GEB 4110	Business Plan Development (or cross-listed course)

PLUS four of the following courses (12 credit-hours):

ACG 3024	Accounting for Managers and Investors
AMH 4373	Entrepreneurs in the US
AMH 4375	Technology and American Society
GEB 2011	Introduction to Business
GEB 4117	Product Development and Innovation (or cross-listed course)
GEB 4364	International Entrepreneurship
GEB 4932	Professional Development Module
GEB 4414	Social & Nonprofit Entrepreneurship
HFT 3210	Fundamentals of Management in the Hospitality Industry
HFT 4292C	Entrepreneurship in Hospitality & Tourism
MAN 3025	Organization and Management
MAN 4142	Intuition in Management (or cross-listed course)
MAN 4802	Small Business Management
MAN 4864	Family-Owned Businesses
MAR 4025	Marketing of Small Business Enterprises

***Note:** Courses from the Schools of Computing and Information Sciences and Journalism & Mass Communication, along with other courses from the Colleges of Arts and Sciences and Engineering, are currently being developed to fit into the Entrepreneurship Track, Entrepreneurship Minor for Non-Business Students and the Entrepreneurship Certificate. For further details on submitting a class to this curriculum or for the most up-to-date course listings, visit www.entrepreneurship.fiu.edu.

Academic Standard

The Department of Management and International Business requires that students receive a grade of "C" or higher in all courses in their major and core management courses (MAN 3025 and MAN 4722) in order to remain in a degree program.

Marketing

Peter R. Dickson, *Ryder Eminent Scholar Chair in Logistics Management and Chair*
Cecilia Alvarez, *Visiting Assistant Professor*
Timothy Dugan Birrittella, *Lecturer*
Jonathan N. Goodrich, *Professor*
Barnett A. Greenberg, *Professor and Faculty Director, IMBA Program, Dominican Republic*
Gary K. Hunter, *Assistant Professor*
Walfried Lassar, *Associate Professor and Ryder Professorship*
Tiger Li, *Associate Professor*
Paul Miniard, *Professor and Knight Ridder Eminent Scholar Chair in Global Marketing*
Anthony Miyazaki, *Associate Professor and Knight Ridder Center Research Professor*
Michael S. Munro, *Lecturer*
Nancy Rauseo, *Lecturer*
Bruce Seaton, *Associate Professor*
Kimberly Taylor, *Associate Professor*
John Tsalikis, *Associate Professor and BMI Professor of Marketing*

Purpose

Mission

The mission of the undergraduate marketing major is to train graduates who are valued and actively recruited by the business community for their skills.

Curriculum Educational Objectives

1. *Identify* and *analyze* the core factors that need to be examined for understanding consumer behavior, market segments, distributor behavior, and competitor behavior, and *recognize* the appropriate market research methods that need to be used.
2. *Recognize* the characteristics of an ethical, professional marketer with appropriate etiquette and image.
3. *Identify* appropriate personal selling approaches and techniques given specific consumer and business market contexts.
4. *Analyze* a company's marketing strategy and recognize appropriate and inappropriate marketing alternatives.
5. *Evaluate* the strategic components for an effective strategy in export-import business development, sales and customer relationship management, international distribution and retailing.

Marketing Major

Students who decide to major in marketing will be given a broad foundation in marketing concepts, and practice in their contemporary contexts. Students will have opportunities to pursue greater depth of understanding in select areas of the discipline:

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	30 hours
Major Courses	21 hours
Upper Division Electives	9 hours

Lower Division/Pre-Business Core

The "General Information" section in this catalog describes the lower division requirements. The Business Pre-Core requirements are listed in the first section of this "College of Business Administration" chapter. Students must complete *all* lower division and Business Pre-Core requirements no later than the first semester of their third year of undergraduate study. No exceptions will be made.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this "College of Business Administration" chapter.

Major Courses (3 credit-hours each)

Undergraduate students majoring in marketing must complete 21 credit hours of 4000-level marketing course work, of which the following 15 credit-hours are required:

MAR 4001	Marketing Yourself in Today's Competitive Job Market
MAR 4002	Tools for Managing Marketing Information
MAR 4503	Consumer Behavior
MAR 4613	Managing Marketing Information
MAR 4853	Marketing Strategy

Students can fulfill their other credit-hours with classes from the list below; however, they must consult with a Marketing faculty advisor before selecting their other courses: It is important that marketing majors complete MAR 4001, MAR 4002, MAR 4613, and MAR 4503 before they take their electives:

MAR 4025	Marketing of Small Business Enterprises
MAR 4144	Export Marketing
MAR 4156	International Marketing
MAR 4203	Marketing Channels
MAR 4213	Transportation Logistics
MAR 4231	Retail Marketing
MAR 4232	Current Issues in Retail Marketing
MAR 4323	Integrated Marketing Communication
MAR 4333	Promotional Strategy
MAR 4334	Advertising Campaign Management
MAR 4400	Personal Selling
MAR 4403	Sales Management
MAR 4803	Cases in Marketing Management
MAR 4941	Marketing Internship
MAR 4949	Cooperative Education in Marketing
MAR 4722	e-Marketing
MAR 4676	Cyber Marketing

Logistics Track

The Ryder Center for Logistics offers a logistics track to undergraduates pursuing their Bachelor of Business Administration. Students who opt to take a logistics track will study a wide range of topics, including distribution channels, materials planning, purchasing, warehousing, inventory management, transportation, global sourcing and logistics, and strategic logistics management.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	30 hours
Major/Track Courses	21 hours
Electives	9 hours

Lower Division/Pre-Business Core

The "General Information" section in this catalog describes the lower division requirements. The Business Pre-Core requirements are listed in the first section of this "College of Business Administration" chapter. Students must complete all lower division and Business Pre-Core requirements no later than the first semester of their third year of undergraduate study.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this "College of Business Administration" chapter.

Track Courses (3 credit-hours each)

TRA 4012	Principles of Transportation
TRA 4203	Principles of Logistics
TRA 4214	Logistics Strategy

Electives: please consult with your advisor about recommended electives.

Example of a Sales Management Concentration

MAR 4400	Personal Selling
MAR 4403	Sales Management
MAR 4860	Customer Relationship Management

Example of a Export/Import Concentration

MAR 4144	Export Marketing
TRA 4721	Global Logistics
MAR 4203	Marketing Channels

Example of a Distribution Management Concentration

MAR 4231	Retail Marketing
TRA 4721	Global Logistics
MAR 4203	Marketing Channels

Marketing Minor

Qualified undergraduate students who are not business majors and who have a 2.5 cumulative GPA must apply to the College of Business Administration to request a minor in Marketing.

To earn a minor in Marketing, students must complete 15 credit-hours of course work as follows:

Required Courses

MAR 3023	Marketing Management
MAR 4503	Consumer Behavior

In addition, students must select and complete any three senior (4000) level marketing (MAR) classes:

MAR 4025	Marketing of Small Business Enterprises
MAR 4144	Export Marketing
MAR 4156	International Marketing
MAR 4203	Marketing Channels
MAR 4231	Retail Marketing
MAR 4232	Current Issues in Retail Marketing
MAR 4323	Integrated Marketing Communications
MAR 4333	Promotional Strategy
MAR 4334	Advertising Campaign Management
MAR 4400	Personal Selling
MAR 4403	Sales Management
MAR 4613	Marketing Research
MAR 4803	Cases in Marketing Management
MAR 4853	Marketing Strategy
MAR 4722	e-Marketing
MAR 4676	CyberMarketing

Retail Management Certificate

Open to all undergraduate business students in the College of Business Administration, the Certificate in Retail Management was designed for those particularly interested in acquiring additional expertise in retail management. It's especially appropriate for those students who are:

- Marketing or Management Information Systems (MIS) majors considering a career in e-commerce
- Marketing or Finance majors interested in retail planning or buying
- Marketing or Management majors considering a career in store management
- Students in any major planning to own/operate their own business

To earn the Certificate in Retail Management, students must successfully complete the program's course and experimental learning requirements. They must achieve a grade of "B" or better in all of their coursework, which includes:

MAR 3023	Marketing Management
MAN 3025	Organization and Management
FIN 3403	Financial Management
CGS 3300	Introduction to Information Systems
MAR 4231	Retail Marketing
MAR 4232	Current Issues in Retailing

In addition to coursework, students in the program must attend four Friday half-day skills workshops (two each semester) and complete a retailing internship—most of which are paid and which the College will help them secure.

Participation in this program, which begins each Fall semester, is limited to twenty students. The application deadline is June 30. To be eligible, applicants must be enrolled in an undergraduate degree program in the College of Business Administration.

The marketing internship program will be available to students on a selective admission basis. You must have completed the four required marketing courses, be of senior standing and have a grade point average in the marketing major of at least 3.0.

Academic Standard

The Department of Marketing requires that marketing majors receive a grade of "C" or higher in *all* courses. It is also strongly recommended that marketing majors join the American Marketing Association Student Chapter and participate actively in its events. To improve the learning experience and to assure employers of the quality of a graduate with a marketing major all marketing majors will take a comprehensive examination of their marketing knowledge and capabilities that will be offered at the end of the MAR 4853 capstone strategy course.

Course Descriptions

Definition of Prefixes:

ACG-Accounting; BAN-Banking; BUL-Business Law; CGS-Computer and Information Systems; FIN-Finance; GEB-General Business; ISM-Information Systems Management; MAN-Management; MAR-Marketing; QMB-Quantitative Methods in Business; REE-Real Estate; RMI-Risk Management and Insurance; TAX-Taxation; TRA-Transportation.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

Departmental or School/College Prefixes:
AC – School of Accounting
AS – College of Arts & Sciences
BA – College of Business Administration
DS – Decision Sciences and Information Systems
EC – Department of Economics
FI – Finance
MA – Management and International Business
ME – Marketing
MS – Mathematical Sciences
TD – Theatre and Dance

ACG 2021 Accounting for Decisions (AC) (3). Accounting concepts and analyses essential to determining the income and financial position of a business enterprise. Prerequisites: ECO 2023, or equivalent and sophomore standing.

ACG 3024 Accounting for Managers and Investors (AC) (3). Introduction to the principles used in measuring organization activities. For non-business majors only.

ACG 3083 Accounting Preparation and Review (AC) (0). A review of ACG 2021 and preparation for ACG 4101. The course explores the preparation and use of accounting information. A thorough review of math procedures applied to business decisions. Prerequisites: ACG 2021 and ACG 3301.

ACG 3301 Accounting for Planning and Control (AC) (3). Use of accounting concepts, analyses, and financial data to aid in the evaluation of the business enterprise; and to aid management in its planning, organizing, and controlling functions. Prerequisites: ACG 2021 or equivalent with a grade of 'C' or higher.

ACG 4101 Financial Accounting I (AC) (3). Underlying concepts and ethical, regulatory and business environment of financial reporting with emphasis on measurement, analysis and interpretation of income, cash flows and financial position. Prerequisites: MAC 2233 and ACG 3301 or equivalent with grades of "C" or higher, successful completion of entrance exam and junior standing.

ACG 4111 Financial Accounting II (AC) (3). Underlying concepts and ethical, regulatory, and business environment of financial reporting with emphasis on measurement, analysis and interpretation of financial position. Prerequisite: ACG 4101 with grade of 'C' or higher.

ACG 4201 Financial Accounting III (AC) (3). Underlying concepts and ethical, regulatory and business environment of financial reporting, with emphasis on accounting for partnerships, international corporations, and business combinations. Prerequisite: ACG 4111 with a grade of 'C' or higher.

ACG 4251 International Accounting (AC) (3). Comparative analysis of accounting concepts and practices in different countries; international accounting standards; problems of accounting for multinational corporations, including transfers of funds and income measurement; and the role of accounting in national economic development. Prerequisites: CGS 2100 or equivalent, ACG 3301 with a grade of 'C' or higher.

ACG 4311 (AC) Applied Accounting Concepts (3). Intensive study and application of new topic(s) as a response to current developments in the fields of financial accounting, auditing/assurance, business valuation, and accounting information systems. Prerequisite: ACG 4401 with a grade of "C" or higher.

ACG 4341 Management Accounting (AC) (3). Determination and control of production costs; job order and process systems; actual and standard costs; budgetary control; performance measurement; ethics; short-run decision models. Prerequisite: ACG 4101 with a grade of 'C' or higher.

ACG 4353 Advanced Management Accounting (AC) (3). Discuss defects in traditional cost management systems, highlight today's leading edge practices including ERP, and show how to design systems benefiting a wide range of organizations. Prerequisites: ACG 4111, ACG 4341, ACG 4401 with grades of "C" or higher.

ACG 4401 Accounting Information Systems (AC) (3). The study of the concepts and terminology of accounting information systems and the use of IT to and decision making in accounting and auditing. Prerequisites: CGS 2100 or equivalent with grade of "C" or better and ACG 4101 with grade of "C" or better.

ACG 4501 Governmental and Institutional Accounting (AC) (3). Budgeting, accounting, and reporting standards and practices for government and other not-for-profit entities. Prerequisites: ACG 4111 or equivalent with grade of "C" or higher.

ACG 4651 Auditing (AC) (3). Standards and procedures of auditing financial information, ethics and responsibilities of auditors, collection and documentation of audit evidence, reporting and international auditing standards. Prerequisite: Must be taken in the last semester of the student's program. ACG 4111 with a grade of 'C' or higher.

ACG 4671 Operational Auditing (AC) (3). Examines operational auditing as a professional discipline for testing and evaluating totality of planning and operating controls; particular attention to development, selling and implementation of recommendations for operating improvement and cost containment. Prerequisites: ACG 4111 or equivalent with grade of "C" or higher.

ACG 4692 Accounting Information Presentation (AC) (3). Seminar in the development and presentation of oral and written information as required by authoritative standards and pronouncements in accounting and auditing. Prerequisites: ACG 4651 and ACG 4341 with grades of 'C' or higher.

ACG 4821 Accounting and Social Responsibility (AC) (3). Ethical and social responsibilities of accountants with

emphasis on professional ethics in corporate, government and public accounting structure and practices and their effects on employees, environment and community. Prerequisites: ACG 4341, ACG 4651 with grades of 'C' or higher.

ACG 4901 Independent Study in Accounting (AC) (1-3). Individual conferences, supervised readings, and reports on personal investigations.

ACG 4931 Special Topics in Accounting (AC) (1-3). For groups of students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

BUL 4310 The Legal Environment of Business (AC) (3). The course includes issues such as: Contracts, Torts, Legal/Political/Economic aspects of Ethics and the Law, U.C.C., Antitrust Law, Employment Law, Administrative Law, Securities Law, and International Business Law topics. Prerequisite: Students must be fully admitted to College of Business.

BUL 4320 Business Law I (AC) (3). Substantive issues and principles of business law, including: the American legal system, torts, contracts, Uniform Commercial Code sales, property law, credit and secured transactions, and ethical issues in business law.

BUL 4321 Business Law II (AC) (3). Substantive issues and principles of law including agency, partnership and corporation law, commercial paper, antitrust, employment, administrative, environmental and computer law; ethical issues in business law.

BUL 4540 Employment Law (AC) (3). Legal and regulatory issues to include: the ADA, privacy issues, sexual harassment, race, gender, religion, age, and other areas of discrimination. Also OSHA, ERISA, workers' compensation, regulations affecting job performance evaluation.

BUL 4650 Special Topics in Business Law (AC) (1-6). Intensive study for groups of students of a particular topic, or a limited number of topics, not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

BUL 4904 Independent Study in Business Law (AC) (1-6). Individual conferences; supervised readings; reports on personal investigations. Prerequisite: Permission of the Director of the School of Accounting.

CGS 3300 Introduction to Information Systems (DS) (3). Survey major information systems (I.S.) problems in organizations. Brief study of basic computer concepts; I.S. development cycle; relation of I.S. and decision-making; microcomputer database, spreadsheet and word-processing business applications. Prerequisites: CGS 2060 or CGS 2100 or equivalent.

FIN 3005 Introduction to Business Finance (FI) (3). Application of financial management to organizations. Analysis of financial statements, cash budgeting, time value of money, etc. Prerequisite: ACG 3024.

FIN 3105 Personal Investment Management (FI) (3). An introductory course to acquaint individuals with basic principles of investments. Topics include the buying and selling of stocks, bonds, and commodities. The operation of markets and planning for risks and returns.

FIN 3140 Personal Financial Management (FI) (3). An introductory course to help individuals achieve their personal financial goals. Topics include personal budgeting, taxes, credit, major expenses, insurance, investments, and retirement planning.

FIN 3244 Introduction to Financial Markets (FI) (1). Introduction to Financial Markets is an overview of credit, money and equity markets and the roles of depository institutions in these markets.

FIN 3403 Financial Management (FI) (3). A study of financial decision making in the corporate form of enterprise. An analysis of the sources and uses of funds. Emphasis is placed on working capital management; capital budgeting techniques; short and long term financing; and capital structure and the value of the firm. Prerequisites: STA 2023 and ACG 2021 or ACG 3024 or equivalent.

FIN 3424 Intermediate Finance (FI) (3). Advanced theories and applications underlying financial decision making. Topics may include valuation of assets and liabilities, advanced time value, mortgage math, commercial loans, capital budgeting, cost of capital, capital structure, dividend policy, restructuring, mergers and acquisition, bankruptcy, cash management, and agency theory. Prerequisite: FIN 3403.

FIN 3652 Asian Financial Markets and Institutions (FI) (3). The course provides students, who are interested in Asia, an exposure to Asian financial market practices and institutional framework. The materials discussed provide a basic framework for the non-finance student to understand the basic concepts and tools of financial markets and institutions, and the specific intricacies of the various Asian countries and their institutional practices.

FIN 3949 Cooperative Education in Finance (FI) (3). Semesters of full-time classroom study are alternated with semesters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully designed and monitored work assignments are intended to develop the student's understanding of the relationship between theory and practice in an authentic work environment. Prerequisite: Approval of Chairperson.

FIN 4080 The Business of the Financial Industry (3). Course examines ethical dilemmas confronting organizations and individuals within a peer group. Topics: human behavior in groups, history of markets, securities law, current events. Prerequisite: Junior status and above.

FIN 4303 Financial Markets and Institutions (FI) (3). Financial markets and the role of financial intermediaries in these markets. Emphasis will be upon the objectives and policies of financial intermediaries within the constraints of law and regulatory authorities. Prerequisites: FIN 3403 or equivalent.

FIN 4324 Commercial Bank Management (FI) (3). The management of bank assets and liabilities; specialized banking functions; and the role of the commercial bank in financing business. Prerequisites: FIN 3403 or equivalent.

FIN 4345 Credit Analysis and Loan Evaluation (FI) (3). Topics to include: introduction to commercial lending;

secured lending; accounts receivable financing and factoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants; subordinations and guarantees; foreign exchange; international transactions and leasing. Prerequisite: FIN 3403.

FIN 4412 Working Capital Management (FI) (3). Liquidity analysis; inventory, credit, and payables mgt.; collection concentration, and disbursement systems; cash forecasting; short-term investing, borrowing, and risk mgt.; treasury info systems. Prerequisite: FIN 3424.

FIN 4435 Capital Budgeting Techniques and Applications (FI) (3). The application of contemporary theory and techniques to the problem of long term resource allocation. A review of capital budgeting techniques and the implications the investment and management of capital have toward the goal of maximizing the value of the firm. Prerequisites: FIN 3424 or equivalent.

FIN 4443 Policies for Financial Management (FI) (3). The process of securing and allocating funds within the organization, with emphasis on the relevant financial decision-making and policy aspects. Prerequisites: FIN 3424 or equivalent.

FIN 4461 Financial Statement Analysis (FI) (3). This course explores methods of deriving information from financial statements, including both published documents and privately prepared reports, that would be of interest to lenders and investors. Extensive use is made of computer assisted financial planning forecasting models. Prerequisite: FIN 3403.

FIN 4486 Financial Risk Management-Financial Engineering (FI) (3). A survey of financial instruments used for financial risk management, including forwards, futures, options and swaps. Emphasis is on identification of financial risks and designing optimal risk management program. Prerequisites: FIN 3424 and FIN 4502.

FIN 4502 Securities Analysis (FI) (3). The examination of the determinants of the values of common and preferred stocks, bonds, and warrants. The timing of security purchases and sales and an introduction to portfolio construction techniques. Prerequisite: FIN 3403.

FIN 4514 Portfolio Analysis and Management (FI) (3). Financial theories will be applied to the construction of portfolios. Portfolio management techniques will be analyzed in regard to the goals of individuals, corporations, and various financial institutions. Prerequisites: FIN 4502 or equivalent.

FIN 4533 Futures Markets (FI) (3). This course covers the institutional, speculative, and hedging concepts associated with futures markets. Individual and institutional uses of these markets are examined, with the emphasis on the risk-return aspects of the futures and cash markets. Prerequisites: FIN 3424 and FIN 4502, FIN 4303 is okay.

FIN 4534 Options Markets (FI) (3). An examination of the risk-return structure of options on stocks, indexes, debt, and futures. An examination of the structure of these markets and strategies for their use in portfolios. Prerequisite: FIN 4502.

FIN 4556 Behavioral Finance (FI) (3). Behavioral Finance studies human behavior and decision-making under conditions of uncertain risk, greed and loss. It applies research from psychology, sociology and anthropology to human behavior in markets.

FIN 4604 International Financial Management (FI,MA) (3). Capital budgeting operational analysis and financial decisions in the multinational context. Working capital management and intrafirm fund transfers. Measurement and evaluation of the risk of internationally diversified assets. Prerequisites: FIN 3403 or equivalent.

FIN 4614 International Capital Markets (FI) (3). The world's major non-U.S. stock exchanges; international diversification and the international capital asset pricing model; foreign exchange markets and Euro-currency markets. Prerequisite: FIN 3403.

FIN 4615 International Banking (FI) (3). Introductory survey of issues that deal with international aspects of banking. The course provides an overview of the structure and operation of the international banking function, the services offered, supporting documentation, and measures to improve the efficiency and effectiveness of the international banking organization. The purpose of the course is to acquaint the students with the daily activities in international banking. Prerequisites: FIN 3403 or equivalent.

FIN 4651 Latin American Financial Markets and Institutions (FI) (3). This course examines the Latin American financial climate and especially financial markets and institutions. Topics include evolution of the money and capital markets, regulation, banking innovations, the role of foreign banking, integration and globalization of banking. Prerequisite: FIN 3403.

FIN 4663 Global Private Banking (3). This course seeks to provide the students with an understanding of the nature of the global private banking, its role in preserving, augmenting and protecting wealth and how it is shaped by a sometimes-controversial need for confidentiality. Prerequisite: FIN 3403.

FIN 4904 Independent Study in Finance (FI) (1-6). Individual conferences, supervised readings, reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

FIN 4934 Special Topics in Finance (FI) (1-6). For groups of students who desire an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

FIN 4941 Finance Internship (FI) (1-3). Full-time supervised work in a selected bank or other organization in the area of finance. Prerequisites: At least 9 hours of finance, consent of instructor, and department chairperson.

FIN 4949 Cooperative Education in Finance (FI) (3). Semesters of full-time classroom study are alternated with semesters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully designed and monitored work assignments are intended to develop the student's understanding of the relationship between theory and practice in an authentic work environment. Prerequisite: Approval of Chairperson.

GEB 2011 Introduction to Business (MA) (3). Introduction to the business world, including the functions of business and management. Examination of the free enterprise system, forms of business ownership and the role of business in society.

GEB 2935 Professional Skills: Career and Leadership Development (MA) (1). Course will respond to the need for students to make sound career decisions. Students will be able to prepare for success in a changing work environment and to use the skills introduced to cope with career decision-making.

GEB 4110 Business Plan Development (3). Takes students through the process of initiating a business venture. Provides students with tools to develop a new business, evaluate business models and analyze entrepreneurial issues. Prerequisite: GEB 4113.

GEB 4113 Entrepreneurship (MA) (3). An introduction to the general theories, principles, concepts and practices of entrepreneurship. Developing business plans. Heavy emphasis is placed on lecture, readings, case studies and group projects.

GEB 4117 Product Development and Innovation (3). Students will develop a theoretical and practical understanding of product development, including actions and methods appropriate in each phase using estimations, spreadsheets and geometric models.

GEB 4364 International Entrepreneurship (3). This course provides a foundation in international entrepreneurship, focusing on the experiences of small as well as large entrepreneurial firms. Cross-national and cross-cultural business practices are analyzed. Prerequisite: GEB 4113.

GEB 4414 Social Entrepreneurship (3). This course explores opportunities for social entrepreneurship-addressing societal needs via the creation of innovative nonprofit or for-profit social purpose organizations.

GEB 4932 Professional Development Module (3). This course presents techniques for outstanding presentation, business planning, analytical and critical thinking skills. The course includes significant focus on business ethics, entrepreneurial dynamics, economics issues, and international business.

GEB 4948 Service Learning (MA) (3). The integration of classroom theory with experimental learning in community service. Participation, development, and management of community service projects, especially those associated with the business community.

ISM 3012 Introduction to Decision and Information Systems (DS) (3). Understanding how computer systems can be used to improve decision making. Includes applications and impacts of IS, databases, decision support systems, production planning and control systems, and resource allocations systems. Not available to business majors.

ISM 3130 Implementing Enterprise Systems (DS) (3). This course focuses on Enterprise Systems functionality and Implementation System architecture, process re-engineering, implementation methodologies and tools, and system configuration are assigned. Prerequisite: ISM 3153.

ISM 3153 Enterprise Information Systems (DS) (3). Designed to provide the students with a comprehensive understanding of Enterprise Information Systems (EIS) and how these systems are able to achieve companies' information and process integration. The implications of EIS on companies' organizational structure, processes, and people's working practices are discussed. Technical aspects of Enterprise Systems such as networks/ architecture, system administration and security, communication interfaces, and application development/ tools are discussed. The course also introduces the student to Enterprise Systems Integration, Web-Enabled Enterprise Systems, Customer Relationships Management, Data Warehousing, and E-commece concepts/tools. Hands-on experience with an Enterprise System is provided.

ISM 3949 Cooperative Education in Management Information Systems I (DS) (1-3). A program enabling MIS majors to work in jobs significantly related to their major area and career goals. Placement must be approved by instructor.

ISM 4054 Introduction to Web Management (DS) (3). Designed to mesh current thinking relative to the development and effective use of web sites in organizations. Topics include the understanding or major web related hardware and software available, and how to manage and use them in organizations. During the course, students will create a commercial web site for a desired known corporation. Prerequisites: CGS 3300 or equivalent.

ISM 4113 Systems Analysis and Design (DS) (3). Topics include: information systems concepts; the structure, design, and development of the data base; and techniques and procedures used in the analysis and design of systems projects. Prerequisites: CGS 3300 or equivalent.

ISM 4151 Systems Management (DS) (3). An in-depth, case-oriented, study of the problems encountered in the management of systems projects. Analyst-user conflicts, communication problems within the systems department, computer evaluation and selection techniques, computer negotiations and contracts, and project management are covered in detail. Where appropriate, field study investigating a topical area will be carried out by each student.

ISM 4210 Data Base Applications (DS) (3). Application of the data base technology and concepts to organization problems. Includes DBMS components; hierarchic, network and relational approaches to DBMS design. Hands on experience with a DBMS. Prerequisites: CGS 3300 or equivalent.

ISM 4211 Database Systems and Physical Design (3). Trains students on managerial activities performed by a database administrator and on efficient performance of a database. Topics include: physical design, database server architecture, capacity planning, and storage structure. Prerequisite: ISM 4210: Database Applications.

ISM 4220 Business Data Communications (DS) (3). Application of telecommunication technology and concepts to organizational problems. Includes components of telecommunication network, management of a network,

and issues related to installing and managing interorganizational systems.

ISM 4323 Information Security Management (3). Managing information security problems: includes attack methods, detection and prevention techniques, cryptography, firewalls and intrusion detection systems, security policies and risk management, and incident response.

ISM 4340 Organizational Impacts of Information Systems (DS) (3). Investigation of the human and organizational factors relevant to design and implementation of information systems in complex organizations. Prerequisites: MAN 3025 and CGS 3300.

ISM 4400 Management Support Systems (DS) (3). Understanding of how Decision Support Systems (DSS) and Expert Systems (ES) support decision making in organizations. Includes architecture of a DSS/ES and how these systems are developed. Hands-on experience with DSS tools. Prerequisites: CGS 3300 or equivalent.

ISM 4949 Cooperative Education in Management Information Systems II (DS) (1-3). A continuation of ISM 3949. A program enabling MIS majors to work in jobs significantly related to their major area and career goals. Placement must be approved by instructor. Prerequisite: CGS 3300 or equivalent.

MAN 3025 Organization and Management (MA) (3). An analysis of organizations and the management processes of planning, organizing, directing, and controlling in the context of socio-technical systems. Individual, group, intergroup, and organizational responses to various environments and technologies are studied, as are pertinent techniques of manpower management.

MAN 3061 Business, Ethics and Environment (MA) (1). Examines personal values and ethics, role of business as a social institution corporate citizenship, creation of ethical work climates, ethics in a global economy and emerging issues.

MAN 3503 Managerial Decision Making (DS) (3). This course concentrates on practical decision problems for the manager in an organization. Topics include decision-making theory, linear programming and extensions, Markov Chains, queuing, simulation, and decision support systems. Use of computer packages. Prerequisites: College Algebra, STA 2023 or the equivalent, and QMB 3150.

MAN 3949 Management Internship I (MA) (3). A special program enabling management majors to work in jobs significantly related to their major area and career goals. Specific placement must be approved by the Department Chairperson prior to enrollment. Prerequisites: Qualification for Internship Program; 2.75 GPA; and junior standing; permission from the department chair.

MAN 4028 Community Service program Management (MA) (3). An applied course in managing community service programs. Contemporary readings combined with development and/or management of a community service program.

MAN 4054 Managing Innovation (3). Addresses managing creative people, projects and departments. Emphasis is on motivating, evaluating, and rewarding creative people, and creating an environment that enhances innovation productivity.

MAN 4064 Crisis Management (MA) (3). Examines the dilemmas of managerial responsibility that occur when organizations face crisis because of disasters or other unexpected circumstances. Emphasis is placed on how to avoid or minimize the organizational or environmental damage a crisis can cause. Prerequisite: MAN 3025.

MAN 4065 Business Ethics (MA) (3). The application of ethical theory to business management. A review of ethical systems, and examples, theoretical and practical of institutionalizing ethics in organizations. Case analyses used, and written projects required.

MAN 4102 Managing Diversity (MA) (3). Examines how workforce diversity can lead to competitive advantage and ethical, fair-minded decision making. Includes topics of gender, race, ethnicity, and other areas of diversity. Covers perception and stereotyping, sexual harassment, the "glass ceiling," and legal issues.

MAN 4120 Managing Virtual Teams (MA) (3). Centers on the analysis of selected concepts in intergroup relations and introduces the strategies, tools and techniques necessary for success in virtual team environments. Prerequisite: MAN 3025.

MAN 4142 Intuition in Management (MA) (3). Balancing Rational and Intuitive approaches for a flexible decision style. Experiential learning individually and in groups. Application of class learnings to life situations. Prerequisite: MAN 3025.

MAN 4151 Organizational Behavior (MA) (3). An analysis of selected concepts in behavioral science, their interaction and application to management. Topics include perception, motivation, and group behavior. Prerequisite: MAN 3025.

MAN 4152 Facilitating Activities for Teambuilding (3). This experimental and web-assisted course will teach students to facilitate activities to improve group communication, trust, decision-making, problem solving and interpersonal skills. Prerequisite: MAN 3025.

MAN 4164 Leadership (3). Designed to provide a clear understanding of current thinking in the area of leadership. Topics include general leadership issues such as leader integrity and authenticity, managing people and effecting change and chairing effective meetings. Use of technology is leading effective global teams is emphasized. Prerequisite: Senior standing.

MAN 4201 Organization Theory (MA) (3). A comparative analysis of various theories of organization (including the classical, biological, economic, and Cyert-March models); and of their treatment of fundamental structure; conflict communications; group and individual behavior; and decision-making. Primary emphasis on developing an integrated philosophy of organization and management. Prerequisites: MAN 3025 or equivalent.

MAN 4203 Leadership in Multilateral Organizations (3). Designed to provide the undergraduate IB student with a clear understanding of current thinking in the area of leadership in multinational firms and coordination of multilateral work activities. Prerequisite: MAN 4602.

MAN 4294 Creativity and Innovation (3). Explores techniques for inventing new things or making things better. These techniques include brainstorming, how to get new ideas, how to evaluate ideas, and how to select ideas for implementation.

MAN 4301 Human Resource Management (MA) (3). Attention is focused on the theory and practice of modern personnel management as related to other management functions. Topics include: selection; training; job and performance evaluation; and incentive schemes. Special attention is given to human resource management and development at various organizational levels. Prerequisite: MAN 3025.

MAN 4320 Recruitment and Staffing (MA) (3). In-depth study of the personnel staffing function. Includes an analysis of objectives, techniques, and procedures for forecasting manpower needs, recruiting candidates, and selecting employees. Prerequisite: MAN 4301.

MAN 4322 Human Resource Information Systems (MA) (3). A survey of personnel reporting requirements; assessment of information needs; manpower planning; and development of integrated personnel systems. Prerequisite: MAN 4301.

MAN 4330 Compensation and Benefits (MA) (3). Presents the theories and techniques used by management in the areas of work measurement, wage incentives, and job evaluation. Prerequisite: MAN 3025.

MAN 4350 Training and Development (MA) (3). Overview of corporate training functions including needs analysis, training program/content development, training techniques and effective delivery systems. Management development and presentation skills are emphasized. Prerequisite: MAN 3025.

MAN 4401 Collective Bargaining (MA) (3). Introduction to labor/management relationships in the United States. Attention to the development of unionism as an American institution, government regulations, and collective bargaining in private and public sectors. A negotiation simulation generally is integrated with classroom work. Prerequisite: MAN 4301.

MAN 4410 Union-Management Relations (MA) (3). Examination of current issues and problems facing unions and management, with emphasis on unfair labor practices, contract administration, and arbitration. Prerequisite: MAN 4301.

MAN 4442 International Business Negotiations (3). Developing expertise in negotiations across cultural borders, working with various suppliers, developing multicultural project teams and sensitivity, and developing counter proposals. Prerequisite: MAN 4602.

MAN 4504 Operations Management (DS) (3). Concepts in design, analysis, and control of operating systems. Facility location and layout, work standards, maintenance, quality control, MRP, planning and scheduling applied to production and service systems. Prerequisite: QMB 3200 or equivalent.

MAN 4523 Production Information Systems (DS) (3). A study of the special problems associated with the development of information systems capable of supporting the production function of an organization. Review of information systems approaches to inventory control and work processing management. Prerequisites: CGS 3300 and MAN 4504, or consent of instructor.

MAN 4584 Productivity and Project Management (DS) (3). Methods and cases to measure, evaluate, plan and improve productivity in business and service organizations; also methods on how to manage projects. Prerequisite: Senior standing in the College.

MAN 4600 International Management (MA) (3). Examines the functions of management in the international firms (e.g., leadership, motivation, communication, human resource development) and issues related to adapting managerial practice to "local" environments. Prerequisite: MAN 4602.

MAN 4602 International Business (MA) (3). Examines the political, economic, legal and cultural international business environment and related institutions impacting global firms; covers international issues in all functional business areas. Prerequisites: ECO 2013, ECO 2023.

MAN 4610 International Human Resources (MA) (3). Compares global human resource systems with emphasis on the reasons HR differences exist. The HR functions of selection, training, compensation and performance management are compared in different countries and cultures. Focuses on both expatriate assignment and foreign HR operations. Prerequisite: MAN 4602.

MAN 4613 International Risk Assessment (MA) (3). Introduces the types of risk confronting businesses operating internationally. Critiques specific techniques used to assess risk and relates the results to management decision making. Prerequisite: MAN 4602.

MAN 4629 International Business Internship (MA) (3). Supervised work in a selected organization in the area of international business. Prerequisites: Consent of instructor and department chairperson.

MAN 4633 MNC Strategy Simulation (MA) (3). Study of the concept and process of MNC strategy. Involves considering the competitive and political structure of the global market, logic of the multinational enterprise, and nature of organizations. Prerequisite: MAN 4602.

MAN 4660 Business in Latin America (MA) (3). Examines the Latin American business climate and U.S.-Latin American Business linkages. Topics include exporting to Latin America, regional economic integration, and examinations of individual countries. Prerequisite: MAN 4602.

MAN 4661 Business in Asia (3). Comprehensive overview of culture and management in major East and Southeast Asian economies. Includes a brief survey examination of the Asian business environment. Prerequisite: MAN 4602.

MAN 4662 Business in Europe (3). Investigates and shows how a unique combination of cultures and environments, despite great social and military conflicts, now a compete among the top world economies. Prerequisite: MAN 4602.

MAN 4671 Special Topics in International Business (MA) (3). For groups of students who wish to study intensively a particular topic, or a limited number of topics,

in international business, not offered elsewhere in the curriculum. Prerequisites: Faculty sponsor and permission of Chairperson.

MAN 4672 International Business Regulation and Ethics (3). Provides a transactional approach to the international regulation and ethical frameworks in which firms conduct business in the global economy. Prerequisite: MAN 4602.

MAN 4673 Trade Policy and Business (3). Examines the multilateral trading system, its rules and practices and its relevance to U.S. business. Attention will focus also on the political dynamics of international trade policy and application. Prerequisite: MAN 4602.

MAN 4690 Independent Study in International Business (MA) (3). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: Faculty sponsor and written permission of Chairperson and Dean.

MAN 4701 Business in Society (ME) (3). A conceptual and practical overview of the role of business in contemporary society. Explores the social context of economic systems, examines the concept of business legitimacy, and looks at responsible management in a global, hi-tech economy. Prerequisite: MAN 3025.

MAN 4702 Emergency and Disaster Management (MA) (3). Organizational response to emergencies and disasters. Preparing for and responding to external crisis such as hurricane, floods, fires, etc.

MAN 4707 Managing Organizational Reputations (3). Examines the importance of organizational reputation. Emphasizes ways organizations can create and maintain reputations for integrity, consistency and quality that will insure viability. Prerequisite: MAN 3025.

MAN 4711 Business-Community Leadership (MA) (3). Examines the role of the company as a community citizen, focusing on methods business leaders can contribute to strengthening the social fabric of their communities to achieve benefits for both the community and the firm. Prerequisite: MAN 3025.

MAN 4712 International Business – Government Relations (3). The main objective of this course is to impart a broad understanding of the relationships between business and government in the international market place. Prerequisite: MAN 4602.

MAN 4722 Strategic Management (MA) (3). The use of cases, guest lecturers, and gaming to integrate analysis and measurement tools, functional areas, and public policy issues. The objective is to develop skill in broad areas of rational decision-making in an administrative context of uncertainty. Prerequisite: Completion of all core requirements. Must be taken in last academic semester of senior year.

MAN 4731 Modern Business History (MA) (3). An examination of the history of the corporation in the United States since the Civil War, up to, and including, the development of the multinational corporation. An examination of the social and economic forces operative in the development of the corporate form. A full exploration of the current power of the corporate form and legal and other, efforts to limit this power. Prerequisites: MAN 4701 or consent of the Instructor.

MAN 4741 Managing Change in Organizations (MA) (3). Emphasizes organizational challenges associated with internal change and examines the importance of change management strategies for organizational policy formation. Explores the impact of change on employee morale, firm performance, and management response capability. Prerequisite: MAN 3025.

MAN 4742 Environmental Management (MA) (3). Analyzes the effect of industrialization and technological change on the physical environment. An examination of the current legal, economic, and political consequences of pollution and environmental damage, and the abatement of these factors. Prerequisites: MAN 4701 or consent of Instructor.

MAN 4802 Small Business Management (MA) (3). The organization and operation of the small business: accounting, finance, production, and marketing subsystems. The use of analytical approach. Problems of manpower management and information flow. Possible use of EDP, case studies. Prerequisite: MAN 3025.

MAN 4864 Family Owned Business (3). Addresses the special issues facing family-owned and managed firms and gives an appreciation for the dynamics in such firms and how to be professional managers in such organizations.

MAN 4930 Special Topics in Management (MA) (1-6). Intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Faculty sponsor and written permission of Chairperson and Dean required. Grading option.

MAN 4949 Management Internship II (MA) (1-3). Continuation of MAN 3949. Prerequisites: Qualification for Internship Program; 2.75 GPA; senior standing; and permission of Department Chair.

MAN 4956 Study Abroad in International Business (3). Designed as an integrated program of learning conducted in foreign business environments. It develops an understanding among economic, political, and cultural factors in various countries. Prerequisite: MAN 4602.

MAN 4970 International Business Honors Project Seminar (3). Seminar that explores recent themes in international business. Designed to help IB Honors students develop a thesis and methodology. Prerequisites: MAN 4602, MAN4600, IDH 3006.

MAR 3023 Marketing Management (ME) (3). A descriptive study emphasizing the functions and institutions common to marketing systems. Prerequisites: Junior standing or permission of department.

MAR 4001 Marketing Yourself in Today's Competitive Job Market (ME) (3). This class introduces students to the importance of their professional image, including a winning attitude, effective communication, interviews, appointments, office protocol, etiquette in global arenas, presentation skills, team building, and negotiations, among other topics. This course is required for all marketing majors. Prerequisite: MAR 3023.

MAR 4002 Tools for Managing Marketing Information (ME) (3). This course presents students with a thorough grounding in approaches and calculations used in the field of marketing, including product mix/pricing/volume relationships, market share concepts, media math, cross tabs, and retail calculations. Prerequisites: MAR 3023, MAR 4613.

MAR 4025 Marketing of Small Business Enterprises (ME) (3). Designed to develop an understanding of the principles and practices which contribute to the successful marketing operation of a small business enterprise, this course deals with marketing policies, techniques, and applications to aid the entrepreneur in this field. Prerequisite: MAR 3023.

MAR 4071 Current Issues in Marketing I (ME) (3). Intensive study of various topic areas in marketing. Course emphasizes student reading and research, with oral and written reports. Students electing to take this seminar may take no more than 3 credit hours of independent study in marketing. Prerequisite: MAR 3023.

MAR 4072 Current Issues in Marketing II (ME) (3). Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 4071.

MAR 4144 Export Marketing (ME) (3). The course emphasizes practical approaches to export marketing, including marketing strategies by individual firms to serve foreign markets. Operational methods of identifying, establishing, and consolidating export markets are discussed, with particular attention to the needs of the smaller business. Prerequisite: MAR 3023.

MAR 4156 International Marketing (ME) (3). The course studies the information required by marketing managers to assist in satisfying the needs of consumers internationally. Special emphasis will be given to the constraints of the international environment. Prerequisite: MAR 3023.

MAR 4203 Marketing Channels (ME) (3). The course focuses upon institutions, functions, and flows within channels of distribution; and their integration into channels systems. Wholesaling and physical activity are emphasized. Prerequisite: MAR 3023.

MAR 4231 Retail Marketing (ME) (3). An examination of the role of retailing in the marketing system. Attention is concentrated on fundamentals for successful retail management. The course emphasizes basic marketing principles and procedures, including merchandising; markup-markdown; pricing; stock-turn; and sales and stock planning. Prerequisite: MAR 3023.

MAR 4232 Current Issues in Retail Marketing (ME) (3). An intensive look at topics of current importance in retailing, from planning, buying and store management perspectives. Course emphasizes interaction with business executives and a practical learning approach. Prerequisite: MAR 4231.

MAR 4323 Intergrated Marketing Communication (ME) (3). A broad introduction to the field of integrated marketing communications and how it fits into the marketing plan. Discussion of objective setting, budgeting, and media planning, as well as the strategic planning and evaluation of advertising media, sales promotion, public relations, direct marketing, personal selling and marketing communications on the internet. Prerequisite: MAR 3023.

MAR 4333 Promotional Strategy (ME) (3). The course deals with problems of decision-making in the areas of marketing communication methods, with primary emphasis on advertising. Prerequisite: MAR 3023.

MAR 4334 Advertising Campaign Management (ME) (3). Strategic approaches to managing advertising campaigns, including selection of approaches; market research; consumer target markets; media; advertisements; development and control of budgets. Prerequisites: MAR 4323 or consent of Instructor.

MAR 4400 Personal Selling (ME) (3). The development of effective salesmen/customer relationships is emphasized. Selection, training, and motivation of the sales force, and the relationship between personal selling and the other elements of marketing strategy are analyzed. Prerequisite: MAR 3023.

MAR 4403 Sales Management (ME) (3). Analysis of field sales management with emphasis on the role of personal selling in the marketing mix, building an effective organization, and controlling and evaluating the sales force. Prerequisite: MAR 3023.

MAR 4503 Consumer Behavior (ME) (3). The course offers an introduction to the analysis of the consumer, as the basis for the development of the marketing mix.

MAR 4613 Managing Marketing Information (ME) (3). An examination of the marketing research process and its role in aiding decision-making. Emphasis is placed on evaluation and utilization of research information in making marketing decisions. Prerequisites: MAR 3023, QMB 3150 or permission of the instructor.

MAR 4676 Cyber Marketing (ME) (3). This course focuses on the integration of interactive technologies into the design and implementation of contemporary marketing programs. Emphasis on market identification through customer analysis, pricing, etc. through capabilities of marketing information technology. Prerequisites: MAR 3023 and MAR 4503.

MAR 4722 e-Marketing (ME) (3). This introductory course in electronic marketing explores how the Internet has revolutionized the buying and selling of goods and services in the marketplace. Topics covered include b2b and b2c electronic commerce, Internet user characteristics, net product, pricing, and distribution, relationship marketing through online strategies, and the legal and ethical challenges of e-marketing. This course emphasizes hands-on learning.

MAR 4803 Cases in Marketing Management (ME) (3). An analytic approach to the performance of marketing management. The elements of marketing mix as the focus of decision-making in marketing are studied, and the case method of instruction is employed. Prerequisites: MAR 4503, MAR 4613.

MAR 4853 Marketing Strategy (ME) (3). An analysis of marketing strategy, including situation analysis, target strategy, positioning strategy, and planning. Course emphasizes the use of cases. Prerequisites: MAR 4503, MAR 4613.

MAR 4860 Customer Relationship Management (ME) (3). Customer Relationship Management (CRM) is becoming an important strategic tool in consumer goods, firms, financial, health and tourist services, business-to-business firms, and in all of eMarketing. Prerequisite: MAR 3023.

MAR 4907 Independent Study in Marketing (ME) (1-6). Individual conferences; supervised reading; reports on personal investigations. Consent of faculty tutor, Department Chairperson and Dean required.

MAR 4933 Special Topics in Marketing (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

MAR 4941 Marketing Internship (ME) (1-6). Full-time supervised work in a selected organization. Prereqiusites: At least 12 hours in marketing; consent of instructor and Department Chairperson.

MAR 4942C The General Motors Marketing Internship (GMMI) Project (ME) (3). To give students the opportunity to gain extensive real-world business experience by preparing and executing an actual hands-on marketing proram, which is typically not available in the average classroom. Prerequisite: MAR 3023.

MAR 4949 Cooperative Education in Marketing (ME) (3). Open to marketing majors who have been admitted to the Cooperative Education Program, with consent of Chairperson. Full-time supervised work with a participating organization in marketing. Report to the organization and a paper to the Chairperson are required.

QMB 3003 Quantitative Foundations of Business Administration (DS) (3). Elements and extensive applications of the following quantitative tools to Accounting, Finance, Economics, Marketing, Management and Production: Algebra review, sets, combinatorics, matrices, linear and non-linear functions, derivatives and integrals with a view towards optimization. Case studies. Open only to Business Administration majors. Prerequisite: College Algebra.

QMB 3200 Application of Quantitative Methods in Business (DS) (3). Inference and modeling for business decisions under uncertainty. Topics covered include survey sampling, confidence intervals and hypothesis testing for mean(s), variance(s), and proportion(s), chi-square test for independence and goodness of fit, correlation, linear regression, time series, and analysis of variance. Use of computer packages to solve real business problems. Prerequisite: STA 2023 or equivalent.

QMB 4680 Simulation of Management Systems (DS) (3). Exploration of basic concepts in computer simulation of systems. Application of these concepts to a variety of managerial problems. Discussion of waiting line models, continuous simulation models; heuristic methods; and management games. Presentation of several computer programs and languages for simulation. Exposure to the operation and analysis of some simulation models. Prerequisite: CGS 3300.

QMB 4700 Principles of Operations Research I (DS) (3). Application of deterministic operations research models (such as linear and non-linear programming, networks, dynamic programming, and branch and bound techniques) to managerial problems of allocation, planning, and scheduling.

QMB 4905 Independent Study in Decision Sciences (DS) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of instructor, Department Chairperson and Dean required. P/F only.

QMB 4930 Special Topics in Decision Sciences (DS) (1-6). For students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of instructor and Department Chairperson required. Grading option.

REE 3043 Real Estate Principles (FI) (3). Introduction to the nature, principles, and fundamental practices of the real estate industry. The completion of this course and REE 4433, meets the FREC educational requirement for real estate licensing.

REE 4103 Appraisal of Real Estate (FI) (3). Valuation and appraisal framework applied to residential and income producing property; role of computers; valuation theory and process as a guide to business decisions.

REE 4204 Real Estate Finance (FI) (3). Financial analysis and structuring of real estate projects; traditional and creative concepts and mechanisms for construction and permanent financing; portfolio problems; governmental programs; money and mortgage market analysis; computers and financial models. Prerequisites: REE 3043 or permission of the instructor.

REE 4303 Real Estate Investment (FI) (3). Advanced concepts of acquisition, ownership, and disposition of investment property; taxation and tax shelter; cash flow projection; analysis of specific types of investment property; utilization of computers as a decision-making tool; models of real estate investment analysis; case analysis and policy formulation. Prerequisites: REE 3043 or permission of instructor.

REE 4433 Legal Environment of Real Estate (FI) (3). The legal environment of real estate as it relates to buying, financing and selling of real property. The completion of this course and REE 3043, meets the FREC educational requirement for real estate licensing. Prerequisites: REE 3043 or permission of instructor.

REE 4504 Real Estate Management (FI) (3). Theories and techniques of professional management of real estate including such topics as creating a management plan; merchandising space; economics of alternates; market analysis; the maintenance process; owner-tenant manager relations; operating budgets; tax consideration; and ethics. (on demand)

REE 4733 Real Estate Land Planning (FI) (3). Theories of city growth and structure, operations of the real estate market in land allocation; current practices in real estate land planning. (on demand)

REE 4754 Real Estate and Regional Development Policy (FI) (3). A capstone course in integrating all the aspects of real estate and regional development learned in previous courses, projects, cases, and field trips. Prerequisite: Permission of the instructor. (on demand)

REE 4814 Real Estate Marketing (FI) (3). Techniques of selecting, training, and compensating sales personnel; obtaining and controlling listings; process and methods involved in the selling of real estate; promotion activities; including advertising and public relations; growth problems; professionalism; and ethics. (on demand)

REE 4905 Independent Study in Real Estate (FI) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson, and Dean required.

REE 4930 Special Topics in Real Estate (FI) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty tutor and Department Chairperson required.

REE 4956 International Real Estate (FI) (3). This course will focus on the characteristics of the international real estate environment including: inbound and outbound transactions, accounting practices, tax laws, legal constraints, global strategic planning, foreign exchange, global financing, and cultural issues. Prerequisites: REE 3043 or permission of instructor.

RMI 3011 Principles of Risk Management and Insurance (3). Risk Management, Elements of Risk Theory and Risk Bearing. The Insurance industry, fundamentals and legal concepts in insurance. Overview of property and liability as well as life insurance policies.

RMI 4124 Health Insurance (3). Economics of Health Insurance types of coverages; marketing, underwriting, claims adjustment and administration. Private and social insurance programs. Regulations.

RMI 4200 Property and Liability Insurance (3). Fundamentals and legal environment of property and liability insurance. Major P-L insurance lines including fire, marine, automobile, worker's compenstation, homeowner's and liability; functions of P-L insurers.

RMI 4220 Casualty Insurance (3). A broad concept of casualty insurance, including a thorough review of basic policies; dailies; underwriting losses; multiple line and comprehensive forms. Subjects covered include personal liability insurance, boiler and machinery insurance, air insurance, inland and ocean marine insurance, workmen's compensation, and surety.

RMI 4305 Risk Management (3). The elements of Risk Theory and Risk Bearing. Risk identification and analysis. Methods for handling risks with quantitative analysis of available alternative including Self-Insurance and Captive Insurance concepts.

RMI 4405 Insurance Law (3). Legal environment and essentials of insurance law. Legal and non-legal liabilities. Regulation of insurance in Florida.

RMI 4935 Special Topics in Insurance (1-6). Intensive study for groups of students of a particular topic or a limited number of topics, not otherwise offered in the Curriculum. Consent of faculty supervisor and Department Chairperson required.

STA 2023 Statistics for Business and Economics (MS) (3). The use of statistical tools in management; introduction of probability, descriptive statistics, and statistical inference as included.

TAX 4001 Income Tax Accounting (AC) (3). A survey of federal income taxation with emphasis on taxation of individuals and corporations, and the ethics of income tax accounting Prerequisites: ACG 3301 with grade of 'C' or higher and junior standing.

TAX 4011 Taxation of Corporations and Partnerships (AC) (3). An in-depth study of income taxation of corporations and partnerships, including tax planning. Prerequisites: TAX 4001 or equivalent with a grade of 'C' or higher.

TAX 4901 Independent Study in Taxation (AC) (1-3). Individual conferences, supervised readings, and reports on personal investigations. Prerequisite: Permission of the Director of the School of Accounting.

TAX 4931 Special Topics in Taxation (AC) (1-3). For groups of students wishing an intensive study of a particular topic(s) not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

TRA 4012 Principles of Transportation (ME) (3). Overview of transportation systems. Topics include: a survey of transportation modes (includeing rail, motor, water, air, and pipelines), management issues (market entry, pricing, competitive responses, service levels, capital structure, traffic management) and global perspectives.

TRA 4202 Logistics Technology (ME) (3). The use of information technology in logistics: EDI, data bases, Internet, decision support systems for logistics, and commercial logistics software. The application of quantitative models in logistics.

TRA 4203 Principles of Logistics (ME) (3). Overview of the logistics function within a firm and in the context of integrated vertical systems. Topics include: customer service, information flow, inventory control, materials management, order processing, packaging, physical distribution, purchasing, transportation, warehousing, and supply chain management.

TRA 4214 Logistics Strategy (ME) (3). Study of logistics policy and strategy, computer simulation of logistics systems under various market conditions, and integration of the logistics function with marketing, production, and finance functions. Case and simulation exercises to illustrate logistics.

TRA 4411 Airport Management (ME) (3). Application of management principles to airport operation, with emphasis on unique characteristics of airport finance; government relations and regulations; airline relations and interdependence.

TRA 4721 Global Logistics (ME) (3). Logistics activities of multinational firms, international transportation systems, global sourcing, customer service, faculty location, inventory management, customs issues, export-import activities and the role of governments.

TRA 4936 Special Topics in Transportation (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

College of Business Administration

Executive Dean **Joyce J. Elam**
Dean, Alvah H. Chapman Jr., Graduate School of Business **Jose de la Torre**
Associate Dean, Academic Affairs and Undergraduate Programs **Clifford R. Perry**
Associate Dean, Alvah H. Chapman, Jr., Graduate School of Business **Tomislav Mandakovic**
Assistant Dean, Communications Publications and Public Relations **Sally M. Gallion**
Assistant Dean, Undergraduate Advising **Lynda K. Raheem**
Director, School of Accounting **Sharon Lassar**
Associate Director, School of Accounting **Manuel Dieguez**
Director, Executive and Professional MBA **Sarah Perez**
Director, BBA+ Weekend and BBA+ Sunrise and International MBA Jamaica **Donald Roomes**
Director of Knight Ridder Center for Excellence in Management **Edward Glab**
Director, Center for International Business Education and Research (CIBER) **Mary Ann Von Glinow**
Executive Director, Eugenio Pino and Family Global Entrepreneurship Center **Alan L. Carsrud**
Director, Jerome Bain Real Estate Institute **John Zdanowicz**
Director, Marketing and Recruiting **Luis Casas**
Director, Executive and Professional Education **Robert Garcia**
Director, Accounting and Program Support **Claudio Pico**
Director, Career Management Services **Barry Shiflett**
Director, Alumni and Partner Relations **Monique Catoggio**
Director, External Relations and Resource Development **Annabelle Rojas**
Director, Corporate Relations **Natalia Sol**
Director, Technology Center **Manoel Oliveira**

Department Chairs:
Decision Sciences and Information Systems **Christos Koulamas**
Finance **William Welch**
Management and International Business **K. Galen Kroeck**
Marketing **Peter R. Dickson**

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FLORIDA INTERNATIONAL UNIVERSITY

COLLEGE OF

education

College of Education

Dean **Luis Mirón**
Associate Dean Academic Affairs **Adriana McEachern**
Associate Dean Enrollment Management and Marketing **Robert M. Wolff**
Associate Dean Budget and Administration **Carmen Mendez**

The College of Education exists in an urban, multicultural setting and has a three-part mission. The first is to prepare professionals who have the abilities and dispositions to facilitate and enhance learning and development within diverse settings. The second is the discovery and dissemination of knowledge related to learning, teaching, and development. The third is the development of professional partnerships to promote meaningful educational, social, economic and political change. Our mission supports:

- Curricula that reflect sound theory and best practice.
- Qualified and diverse students and graduates.
- Qualified and diverse faculty active in teaching, research and service.
- Effective governance and organizational structure within an environment of open communication among faculty, administrators, staff, students and community.
- Collaborative and mutually beneficial partnerships with schools and other organizations.
- Visibility at local, state, national and international levels.
- Continuous improvement of the College.

The College offers instructional programs at the undergraduate and graduate levels, engages in research and program development activities, and provides field services to the educational community. The conceptual framework guiding education curricula and programs in the College is grounded in four core concepts that are central to the vision faculty have of professional educators graduating from the College's programs: intercultural, interconnectedness, inquiry, and instructional leadership.

The College, housed in the Sanford and Dolores Ziff Education Building (ZEB) at Florida International University—University Park, is fully accredited by the National Council for the Accreditation of Teacher Education, the Florida Department of Education, and the State University System.

To support its mission, the College is organized into four departments:

- Educational Leadership and Policy Studies
- Educational and Psychological Studies
- Health, Physical Education and Recreation
- Curriculum and Instruction

Bachelor of Science degree programs are offered in the following specialities:

Art Education
Biology Education
Chemistry Education
Early Childhood Education with ESOL Endorsement
Elementary Education with ESOL Endorsement
English Education 6-12 with ESOL Endorsement
Exercise and Sports Sciences
  Exercise Physiology Track
  Pre-Athletic Training Track
French Education
Mathematics Education
Parks and Recreation Management
  Leisure Service Management Track
  Parks Management Track
  Recreational Therapy Track
Physical Education
  Physical Education K-12
  Sports Management Track
Physics Education
Social Studies Education
Spanish Education
Special Education
  Exceptional Student Education with ESOL Endorsement

Applicants to the College of Education programs should carefully examine the choices of major concentrations and program objectives. Because there are occasional revisions of College of Education curriculum during the academic year, some curriculum changes may not be reflected in the current catalog. Prospective students are advised to contact appropriate advisors to ask for current information regarding specific programs of interest.

General advisement is done in the Advising Center. For an appointment call (305) 348-2768 for University Park, Broward residents may call (954) 355-5622 for the Broward Program. Additional information is available on the FIU website at www.fiu.edu and on the College of Education website at http://education.fiu.edu. Specific program advisement is available by prearranged personal appointment with advisors at all locations.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the State University System and the Florida Legislature. Changes may be made without advanced notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Bachelor of Science Programs

Undergraduate students will complete at least 60 semester hours of upper-division credits, including a residency requirement of 30 semester hours prior to graduation at the University. Before formal admission to the University, a student may be approved to take 15 credits as a non-degree seeking student which, if applicable to the major field of study and approved by an advisor, may be applied to the degree program.

Professional Training Option (PTO) Alternate Certification

Students must apply for the PTO: Alternate Certification or Education Minor program in the College Advising Center. Students who complete the entire program will have their transcripts endorsed as having successfully completed the Professional Training Option (PTO).

Education Minor

Students with arts and sciences majors in the following areas, Art, English, Math, Modern Languages, Music, Sciences, and Social Studies can also complete a 18-21 credit minor in education or an alternative certification program that follows the curriculum below:

Education Core (15 credits)

EDF 4634	Social and Cultural Foundations of Education	3
EDP 3004/5053	Educational Psychology	3
EDG 3321/5414	Instructional Decision Making	3
ESE 4343C/5344	Secondary Classroom Management	3
RED 5147	Developmental Reading	3

Special Methods: Subject Area Specific (3-6 credits)

English 6-12/TESOL Unfused

LAE 4335/5336C	Special Teaching Lab: English	3

Mathematics

MAE 4333C	Special Teaching Lab: Math	3

Physics/Chemistry/Biology

SCE 4330	Secondary Science Teaching Methods	3

Social Studies

SSE 4384	Special Teaching Lab: Social Studies	3

French/Spanish

FLE 4314/5142	Methods of Teaching Modern Languages in Elementary School	3
FLE 4375/5371	Methods of Teaching Modern Languages at the Secondary Level	3

Art Education

ARE 4316	Special Teaching Lab: Art K-5	3
ARE 4341	Special Teaching Lab: Art 6-12	3

Music Education

MUE 3340	Elementary Music Methods	3
MUE 4341	Secondary Music Methods	3

Undergraduate Admission Requirements

College of Education program standards are intended to insure that students have the breadth and depth of background needed for successful upper-division work in education. All students in initial teacher preparation programs are required to have a minimum overall GPA of 2.5 for all lower division/transfer course work to be admitted to the College. In addition, these students are required to successfully pass all subsections of the CLAST, or the General Knowledge Exam, or the Praxis I, without alternatives prior to transferring to the College. Other majors must have passed or be exempted from all sections of the CLAST.

All stated admission requirements are to be considered minimum. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she understands and has met the requirements.

Lower Division Curriculum Requirements:

Students applying for the college upper division programs must have completed all of the following:

- University Core Requirements
- Foreign Language Requirements
- Common pre-requisites for disciplines (Refer to specific program requirements)

Education Prerequisites

EDF 1005	Introduction to Education[1]	3
EDG 2701	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology, or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

In addition to EDG 2701, students must take six credit hours with an international or diversity focus in lower division. See individual programs for specific major prerequisite courses.

Upper-Division Requirements Professional Studies Core (9)

Every teacher education student must enroll in the following courses:

EDF 4634	Cultural and Social Foundations of Education	3
EDG 3321	General Instructional Decision Making	3
EDP 3004	Educational Psychology	3

Subsequent special teaching laboratories and courses build on these core courses to extend and refine knowledge skills, and dispositions. All teacher education programs include one semester of student teaching in a public or approved non-public school. Student teaching requires the student to spend the entire school day of a complete semester on site. A student is not allowed to be employed while student teaching.

Upon the successful completion of all program requirements, the Bachelor of Science degree is awarded. The student is eligible to apply for a State of Florida Teaching Certificate in the field of specialization if the student has completed a College of Education State-approved program with a required 2.5 GPA.

Undergraduate Grading Policies

Undergraduate students must have a minimum overall grade point average (GPA) of 2.5 in order to graduate. A grade of C- or less is not acceptable toward graduation in any required program of study course in the College of Education, any college/program prerequisite or any Gordon writing/math requirements meeting General Education or lower division core requirements. Furthermore, students will not be approved for student teaching with a grade of 'C-' in any required program of study course or with less than a minimum GPA of 2.5 in their field of specialization. Specific undergraduate programs may have higher grading criteria. Students applying for State of Florida Teacher Certification must present a GPA of 2.5 or higher in their teaching major.

All stated admission requirements are to be considered minimum. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she understands and has met the requirements.

Certification Only Students

Students choosing to pursue course work leading toward State of Florida Teacher Certification (rather than a second degree) are considered Non-Degree Seeking Students and must abide by all policies and limitations set forth for non-degree seeking students. State of Florida certification requirements are considered to be minimum

requirements. It may be necessary to register for additional prerequisite courses to enroll in a desired course. Students who register for a course but have not completed the prerequisite course(s) will be administratively dropped from the class.

Student Teaching and Fingerprint Requirements

State of Florida Certification requires all applicants to be fingerprinted and checked by state and local law enforcement agencies. Local public and private schools and systems may also require similar security procedures for field placements, student teaching and/or internships. Students with a CHR (criminal history record) should be prepared to promptly provide documentation of adjudication in order to facilitate review and determination of eligibility for placement in the district or school requested. Details regarding specific district requirements, deadlines and documentation are available in ZEB 230, Office of Field Experiences.

Given the unique nature of the teaching profession requiring mastery of cognitive skills, demonstration of appropriate interpersonal skills, and professional behavior, the faculty retains the right to "counsel out" of the program and/or to not recommend for internship placement any student whose level of interpersonal competence and professional behavior is considered incompatible with that required for effective functioning as a teacher.

For all Teacher Prep and Counseling Field Experiences

Online information and the student teaching application is available at http://education.fiu.edu. Online submission deadline for Fall placement is due February 1; application for Spring placement for Elementary, Early Childhood and ESE majors is due June 1; for all other Spring placements the deadline is September 15. A set of hard copies is due to ZEB 230 for Fall placements by March 1; for Spring placement for Elementary, Early Childhood, and ESE majors is due July 1; for all other majors is due October 1.

Graduation Requirements:

Cumulative GPA of 2.5 or higher
No grades of C- or less

All Students graduating from an Initial Teacher Preparation Program must pass the Florida Teacher Certification Exam prior to graduation. (This includes the Professional Education, the Subject Area, the General Knowledge Exams), and demonstrate successful completion of the Florida Educator Accomplished Practices. Students who fail one or more sections of the FTCE will not be cleared for graduation.

Master of Arts in Teaching (MAT) Degree

Students who hold a bachelors degree in a field other than education and wish to teach may want to consider pursuing the MAT degree. Admission to these degree programs include passing all sections of the CLAST, or the General Knowledge Exam, or the Praxis I, without alternatives. After July 1, 2002, this requirement may be waived for students wih a BS degree and a score of 1000 on the GRE. New graduation requirements for these Alternate Master's Programs include the following:

- Overall GPA of 3.0
- Passing scores on all three (FTCE) sections of the Florida Teacher Certification Exam. (Professional Education, Subject Area, and General Knowledge)
- Successful demonstration of all Florida Educator Accomplished Practices.

Note: If a student receives passing scores on the CLAST prior to July 1, 2002, they do not have to pass the new General Knowledge test. Students who fail one or more sections of the FTCE will not be cleared for graduation.

See specific program information and faculty advisor for additional information.

Curriculum and Instruction

Cengiz Alacaci, *Associate Professor, Mathematics Education*
Kingsley Banya, *Professor, Curriculum Studies, International and Comparative Education*
Charles Bleiker, *Associate Professor, Early Childhood Education*
Chanho Chae, *Visiting Assistant Professor, Early Childhood*
David Y. Chang, *Professor, Art Education*
Laura Dinehart, *Visiting Assistant Professor, Early Childhood*
Lisbeth Dixon-Krauss, *Professor of Literacy Education*
Eric Dwyer, *Associate Professor, TESOL and Modern Language Education*
Mohammed K. Farouk, *Associate Professor, Social Studies/Global Education, Coordinator of Doctoral Programs*
Joyce C. Fine, *Associate Professor, Literacy Education*
Gail P. Gregg, *Associate Professor, English Education*
Sharon W. Kossack, *Professor, Literacy Education*
Hilary Landorf, *Assistant Professor, Social Studies/Global Education*
Teresa Lucas, *Visiting Assistant Professor, TESOL*
Louis Manfra, *Assistant Professor, Early Childhood*
Nancy Marshall, *Associate Professor, Literacy Education*
Alicia Mendoza, *Associate Professor, Elementary Education*
Lynne D. Miller, *Associate Professor, Literacy Education*
George E. O'Brien, *Associate Professor, Science Education*
Aixa Perez-Prado, *Lecturer, TESOL*
William M. Ritzi, *Instructor, Art Education*
Angela Salmon, *Assistant Professor, Early Childhood Education*
Linda Spears-Bunton, *Associate Professor, English Education*
M. O. Thirunarayanan, *Associate Professor, Learning Technologies*
Maria Tsalikis, *Visiting Assistant Professor, Reading*
Leanne Wells, *Visiting Instructor, Mathematics Education*
Robert Vos, *Associate Professor, Learning Technologies*

General Program Information

The Department of Curriculum and Instruction offers undergraduate programs leading to the Bachelor of Science degree in early childhood, elementary, and the secondary school subject areas of specialization. State of Florida certification requirements are met for all programs preparing early childhood, elementary, secondary (6-12) teachers and K-12 teachers in Art Education and Modern Language Education. All teacher preparation programs are accreditated under the college accreditation by the National Council for the Accreditation of Teacher Education (NCATE) and approved by the State of Florida Department of Education.

The department is strongly committed to field experiences completed concurrently with courses throughout the respective program and through Student Teaching. The department is also committed to the generation and application of knowledge through research and service to the community.

Undergraduate initial teacher preparation programs are as follows:

Early Childhood Education:
Prekindergarten/Primary Education: Age 3 to Grade 3 (ESOL Endorsement)

Elementary Education: Grades K-6 (ESOL Endorsement)

General Education: Grades K - 12
Art Education
French Education
Spanish Education

Secondary Education: Grades 6-12
Biology Education
Chemistry Education
English Education/ESOL
Mathematics Education
Physics Education
Social Studies Education

Upon admission to the University and to the College, each student is assigned an advisor in the selected teaching field. Upon successful completion of the work specified in the program of study, the student is awarded the Bachelor of Science Degree with a major in a specified subject matter area or level of schooling is eligible for regular teacher certification in the State of Florida.

Admission Requirements: Undergraduate Initial Teacher Preparation Programs

To qualify for admission to the programs, undergraduate candidates must have met all the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower-division GPA of 2.5 or higher, and passing scores on all four parts of the CLAST Exam, or the General Knowledge Exam, or the Praxis I.

All stated admission requirements are to be considered minimum. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Field Experiences

Most courses offered by the department require observation and participation in selected schools. The course descriptions identify the courses which require in-school classroom experiences guided by the directing classroom teacher and a College of Education faculty member.

The student teaching assignments are fulfilled in designated field centers. This experience is on a full-time basis for one semester. Permission to student-teach is contingent upon successful completion of all other requirements specified in the program of study. Students may be assigned to do their student teaching during either the Fall or Spring semesters of their senior year. There is no student teaching during the Summer semester.

Application for student teaching is the responsibility of the student. Necessary forms may be obtained on line at the web address: http://education.fiu.edu. Deadline dates are July 1 for Spring student teaching and March 1 for Fall placement.

All stated admission requirements are to be considered minimums. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It

is the responsibility of the student to assure that he/she has met the requirements.

Graduation Requirements

In the College of Education, all undergraduate students in initial certification programs are required to meet the following before they can graduate from their respective teacher education programs.

1. An overall GPA of 2.5
2. Successful demonstration of all the Florida Educator Accomplished Practices - preprofessional level
3. Passing scores on the three tests that make up the Florida Teacher Certification Exam.

For students who passed the CLAST prior to July 1, 2002. The General Knowledge Test will not be required.

All admission and graduation information described above pertains to students entering all of the initial teacher preparation programs that follow:

Bachelor of Science in Early Childhood Education: (Prekindergarten/Primary Education: Age 3 through Grade 3 & ESOL Endorsement)

Degree Track Hours: 132

Lower Division (60)

See the section above regarding general information, admission and graduation requirements, and new general education requirements (45 hours).

Upper Division Program (72)

Minimal acceptable grade is a "C"

*Denotes courses requiring Field Experiences

EEC 3204	Issues in Early Childhood Education*	3
EDP 3004	Educational Psychology	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
EDG 3321	General Instruction Decision Making	3
RED 3313	Language and Literacy Development*	3
SCE 4310	Content and Methods of Teaching Elementary Science* ++ (ECE)	3
TSL 3370	ESOL Issues: Principles & Practices I*	3
EEX 3221	Assessment of Exceptional Students	3
RED 4100	Emergent Literacy	3
ARE 3313	Content and Methods of Teaching Elementary Art* (ECE)	3
EEC 4005	Early Childhood Programs*	3
HLP 3722	Content and Methods of Teaching Elem Health, PE (ECE) *	3
RED 4150	Content and Methods of Teaching Beginning Literacy*	3
EDP 3218	Classroom Management	3
MAE 4310	Content and Methods of Teaching Elementary Mathematics* (ECE)	3
EEC 4204	Early Childhood Curriculum*	3
EDF 4634	Cultural/Social Fdns of ED	3
LAE 4405	Children's Literature*	3
TSL 4141	ESOL Issues: Principles & Practices II*	3
SSE 4118	EEC Social Studies*	3
EEC 4943	Student Teaching Intership***	9
EDE 4936	Senior Seminar***	3

These courses must be taken in the following sequence: RED 3313, RED 4100, RED 4150.

*TSL 3370 is a prerequisite for TSL 4141. **These courses are not offered in summer terms.**

All courses must be taken prior to student teaching courses EEC 4943, EDE 4936.

Early Childhood Development Track (60)

A community and family based program geared towards individuals who are already working in programs serving infants, toddlers, and pre-school aged children.

Requirements

Students must pass all the subsections of the CLAST, or the General Knowledge Exam, or the Praxis I, meet the general requirements of Florida International University, and meet and abide by the admission requirements of the College of Education.

Course Requirements

Child Growth and Development: (6 credit hours) (to include the period of conception to age 8)

EDP 3501	Child Development*	3
EDP 4502	Early Social and Emotional Development	3

Historical, Philosophical, and Sociological Perspectives in Early Childhood Education: (9 credit hours)

EDF 4634	Cultural and Social Foundations of Education	3
EEC 3204	Issues in Early Childhood Education	3
EEC 4005	Early Childhood Educational Programs	3

Developmentally Appropriate Integrated Curriculum and Practices in Programs Serving Age 3 through Grade 3: (24 credit hours) (include integrated field experiences)

ARE 3313	Art	3
TSL 3370	ESOL	3
RED 4100	Emergent Literacy	3
RED 4150	Teaching Beginning Literacy	3
LAE 4405	Children's Literature	3
EEC 4204	Early Childhood Curriculum	3
RED 3313	Language and Literacy Development	3
EEC 4267	Curriculum Program – Preschool	3

Issues and Practices to Promote Family and Community Involvement: (6 credit hours) (Include integrated field experiences)

EEC 3400	Family Literacy and the Young Child	3
EEC 3408	Community and the Young Child	3

Health, Nutrition, and Safety: (3 credit hours)

HLP 3722	Content and Methods of Teaching Elem Health and Physical Education	3

Diagnosis, Assessment, and Evaluation: (3 credit hours) (include integrated field experiences)

EDP 4503	Assessment, Evaluation, and Diagnosis of the Young Child	3

Special Needs of all Children and their Families: (6 credit hours) (include integrated field experiences)

EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
EEC 3403	Special Needs of Children and their Families	3

Child Guidance and Classroom Management: (3 credit hours) (include integrated field experiences)

EDP 3218	Classroom Management	3

These courses must be taken in the following sequence: RED 3313, RED 4100, RED 4150.
*TSL 3370 is a prerequisite for TSL 4141. **These courses are not offered in summer terms.**

Bachelor of Science in Elementary Education (Grades 1-6 & ESOL Endorsement)

Degree Program Hours: 129

Lower Division (60)

See the section above regarding general information, admission and graduation requirements, and new general education requirements (45 hours).

Upper Division Program: (69)

Minimum acceptable grade is "C"

EDP 3004	Educational Psychology	3
EDG 3321	General Instruction Decision Making	3
EDE 3302	Issues in Elementary Education*	3
RED 3313	Language & Literacy Development*	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
EDP 3218	Classroom Management	3
TSL 3370	ESOL Issues: Principles & Practices I*	3
SCE 4310	Content and Methods of Teaching Elementary Science*	3
RED 4150	Content and Methods of Teaching Beginning Literacy*	3
ARE 3313	Content and Methods of Teaching Elementary Art*	3
EDF 3430	Measurement and Evaluation in the Classroom	3
MAE 4310	Content and Methods of Teaching Elementary Mathematics*	3
HLP 3722	Content and Methods of Teaching Elementary Health and Physical Education*	3
RED 4311	Content and Methods of Teaching Intermediate Literacy*	3
EDF 4634	Cultural/Social Foundations of Education	3
TSL 4141	ESOL Issues: Principles & Practices II*	3
SSE 4312	Content and Methods of Teaching Elementary Social Studies*	3
RED 4110	Content and Methods of Teaching Literacy in Schools**	3
MUE 3210	Content and Methosds of Teaching Elementary Music*	3

These two courses must be taken together in the final semseter. All other courses are prerequisites.

EDE 4943	Student Teaching Internship	9
EDE 4936	Senior Seminar in Elementary Education	3

All courses marked with asteriks have a corequisite of 20 hours of field work distributed throughout the term. Other courses may also have field requirements.
These courses must be taken in the following sequence: RED 3313, RED 4100, RED 4150.
RED 4110 is not given in the summer.
*TSL 3370 is a prerequisite for TSL 4141. **These courses are not offered in summer terms.**
All courses must be taken prior to student teaching courses EDE 4943, EDE 4936.

Bachelor of Science in Art Education: Grades K-12

Degree Program Hours: 135

Lower Division (60)

See the section above regarding general information, admission and graduation requirements, and new general education requirements (45 hours).

Major Common Prerequisites

ART 1202C	2D Design	3
ART 1203C	3D Design	3
ART 2300C	Drawing I	3
ART 2301C	Drawing II	3
ARH 2050	Art History Survey I	3
ARH 2051	Art History Survey II	3
ART xxxx	Art Studio Electives	6

Upper Division Program: (75)

Subject Matter Specialization: (30)

ARH 4470	Contemporary Art	3
ART 3331C	Figure Drawing II	3
ART 3504C	Painting II	3
ART 3402C	Printmaking III	3
ART 3702C	Sculpture II	3
PGY 3410C	Photography II	3
Art History Elective		3
ART 3761C	Ceramics II	3

Select two of the following three courses:

ARE 4848	Concepts in Art Education	3
EDF 4xxx	Study Abroad	3-6
ARE 4459	New Media/Crafts	3

Professional Education: (45)

EDF 4634	Cultural and Social Foundations of Education	3
EDP 3004	Educational Psychology	3
EDG 3321	General Instructional Decision Making	3
EDP 3218	Classroom Management	3
EDF 3430	Measurement and Evaluation in the Classroom	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers	3
ARE 4316	Special Teaching Lab Art K-5 (Fall only)	3
ARE 4341	Special Teaching Lab Art 6-12 (Fall only)	3
ARE 4xxx	Special Topics in Art Education or advisor approved electives	3 3-6
ARE 4940	Student Teaching	9

Special Methods and Student Teaching

Students must complete the 14 semester hours of foundations courses, and all core courses before enrolling in 4000-level Special Teaching Lab courses. ARE 4316 and ARE 4341 must be taken before ARE 4940.

Applications to student teach are due in the office of the Director of Student Teaching by July 1 for Spring semester placement.

Bachelor of Science in Biology Education: Grades 6–12

Degree Program Hours: 126

Lower Division (60)

Eight semester hours of biology
Eight semester hours of general chemistry
or
Eight semester hours of general physics, mathematics through pre calculus. Six semester hours of electives in science. It is recommended that students complete mathematics through calculus I

Upper Division Program: (66)

Subject Matter Specialization: (30)

PCB 3063	Genetics	3
PCB 3043	Ecology	3
PCB 4023	Cell Biology	3
PCB 3063L	Genetics Lab	1
PCB 3043L	Ecology Lab	1
PCB 4023L	Cell Biology Lab	1
PCB 4674	Evolution	3
PCB 3702	Intermediate Human Physiology and	3
PCB 3702L	Intermediate Human Physiology Lab	1
	or	
PCB 3703	Human Physiology I and	3
PCB 3703L	Human Physiology I Lab and	1
PCB 3704	Human Physiology II and	3
PCB 3704L	Human Physiology II Lab	1
Electives in Upper Division Biology*		7-11

*Approved by program advisor

Professional Education: (36)

EDF 3430	Measurement and Evaluation in the Classroom	3
EDF 3004	Educational Psychology	3
EDG 3321	General Instructional Decision Making	3
ESE 4322C	Secondary Classroom Management	3
EDF 4634	Cultural and Social Foundations of Education	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers	3
SCE 4330	Secondary Science Teaching Methods	3
SCE 4944	Student Teaching	9

Special Methods and Student Teaching

A student must complete 12 semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses.
SCE 4330 must be taken before SCE 4944.
TSL 4324 **is not offered in the summer terms.**
All courses must be taken prior to student teaching.
Applications to student teach are due in the office of the Director of Student Teaching no later than February 1 for Fall semester placement and September 8 for Spring semester placement.

Bachelor of Science in Chemistry Education: Grades 6-12

Degree Program Hours: 126

Lower Division (60)

Eight semester hours of chemistry
Eight semester hours of general physics
or
Eight semester hours of general biology and mathematics through calculus I. Six semester hours of electives in science. It is recommended that students complete mathematics through calculus II

Upper Division Program: (66)

Subject Matter Specialization: (30)

CHM 3410	Physical Chemistry I	4
CHM 3410L	Physical Chemistry I Lab	1
	or	
CHM 3400	Fundamentals of Physical Chemistry	3
CHM 3400L	Fundamentals of Physical Chemistry Lab	1
CHM 3120	Introduction to Analytical Chemistry	3
CHM 3120L	Introduction to Analytical Chemistry La	1
CHM 4130	Instrumental Analysis	3
CHM 4130L	Instrumental Analysis Lab	1
CHM 4220	Advanced Organic Chemistry	3
CHM 4304	Biological Chemistry I	3
CHM 4304L	Biological Chemistry I Lab	1
CHM 4930	Senior Seminar	1
Electives in Upper Division Chemistry		9-10

*Approved by program advisor

Professional Education: (36)

EDF 3430	Measurement and Evaluation in the Classroom	3
EDF 3004	Educational Psychology	3
EDG 3321	General Instructional Decision Making	3
ESE 4322C	Secondary Classroom Management	3
EDF 4634	Cultural and Social Foundations of Education	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers	3
SCE 4330	Secondary Science Teaching Methods	3
SCE 4944	Student Teaching	9

Special Methods and Student Teaching

A student must complete 14 semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses.
SCE 4330 must be taken before SCE 4944.
TSL 4324 **is not offered in the summer terms.**
All courses must be taken prior to student teaching.
Applications to student teach are due in the office of the Director of Student Teaching no later than February 1 for Fall semester placement and September 15 for Spring semester placement.

Bachelor of Science in English Education: Grades 6-12

Degree Program Hours: 129

Lower Division (60)

See the section above regarding general information, admission and graduation requirements, and new general education requirements (45 hours).

Upper Division Program: (69)

Subject Matter Specialization: (30)

LIN 3670	Grammatical Usage	3
	or	
LIN 4680	Modern English Grammar	3
LAE 4463	Multicultural Literature	3
LAE 4464	Adolescent Literature	3
American Literature		12
(3 hours must be in African-American Literature and hours in non-canonical Literature)		3
English Literature		3
Shakespeare		3
Restricted electives		3

Professional Education: (39)

EDF 3430	Measurement and Evaluation in the Classroom	3
EDG 3321	General Instructional Decision Making	3
ESE 4322C	Secondary Classroom Management	3
EDF 4634	Cultural and Social Foundations of Education	3
EDP 3004	Educational Psychology	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 4325	Subject Area Reading	3
TSL 3370	Principles and Practices I	3
TSL 4141	ESOL Issues: Principles and Practices II	3
LAE 4335	Special Teaching Laboratory English	3
LAE 4942	Student Teaching	9

Special Methods and Student Teaching

A student must complete 14 semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses.
LAE 4335 is a prerequisite for LAE 4942.
TSL 3370 is a prerequisite for TSL 4141
All courses must be taken prior to student teaching.

Bachelor of Science in French Education: Grades K-12

Degree Program Hours: 126

Lower Division (60)

See the section above regarding general information, admission and graduation requirements, and new general education requirements (45 hours).

Upper Division Program: (66)

Subject Matter Specialization: (30)

Phonetics or Contrastive Phonology	3
Introduction to Linguistics or Linguistics in Target Language	3
Civilization/Culture	6
Syntax/Composition	12
Literature in Target Language	6

Professional Education: (36)

EDF 3430	Measurement and Evaluation in the Classroom	3
EDG 3321	General Instructional Decision Making	3
EDP 3218	Classroom Management	3
EDF 4634	Cultural and Social Foundations of Education	3
EDF 3004	Educational Psychology	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 4325	Subject Area Reading	3
FLE 4314	Methods of Teaching Modern Language in the Elementary Schools	3
FLE 4375	Methods of Teaching Modern Language at the Secondary Level	3
FLE 4942	Student Teaching	9

Special Methods and Student Teaching

Students must complete the 15 semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll in FLE 4375, and FLE 4314 before enrolling in FLE 4942.

Bachelor of Science in Mathematics Education: Grades 6-12

Degree Program Hours (129)

Lower Division (60)

See the section above regarding general information, admission and graduation requirements, and new general education requirements (45 hours).

Upper Division Program: (69)

Subject Matter Specialization: (30)

Thirty semester hours of mathematics at the 3000 level:

COP 2210	Programming I	4
STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3
MTG 3212	College Geometry	3
MAS 3105	Linear Algebra	3
MHF 3404	History of Mathematics I	3
MAS 4203	Number Theory	3
Advisor Approved Electives in Mathematics		9

Professional Education: (39)

EDF 3430	Measurement and Evaluation in the Classroom	3
EDG 3321	General Instructional Decision Making	3
ESE 4322C	Secondary Classroom Management	3
EDF 4634	Cultural and Social Foundations of Education	3
EDF 3004	Educational Psychology	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 4325	Subject Area Reading	3
TSL 4340	ESOL Issues and Strategies for Content Teachers	3
MAE 3651	Learning Math with Technology	3
MAE 4333C	Special Teaching Lab Math	3
MAE 4942	Student Teaching	9

MAE 4333C is a prerequisite for MAE 4942
TSL 4340 **is not offered in the summer terms.**
All courses must be taken prior to student teaching.

Bachelor of Science in Physics Education: Grades 6-12

Degree Program Hours: 126

Lower Division (60)

Eight semester hours of physics
Eight semester hours of general chemistry
or
Eight semester hours of general biology and mathematics through calculus II. Six semester hours of electives in science. It is recommended that students complete mathematics through calculus II.

Major Prerequisites:

Physics with Lab	8
Chemistry with Lab	8
Electives in Science	6

Upper Division Program: (66)

Subject Matter Specialization: (30)

PHY 3106	Modern Physics I	3
PHY 3106L	Modern Physics Lab I	1
PHY 3107	Modern Physics II	3
PHY 3107L	Modern Physics Lab II	1
PHY 3513*	Thermodynamics	3
Electives in Upper Division Physics*		19

*Approved by program advisor

Professional Education: (36)

EDF 3430	Measurement and Evaluation in the Classroom	3
EDP 3004	Educational Psychology	3
EDG 3321	General Instructional Decision Making	3
ESE 4322C	Secondary Classroom Management	3
EDF 4634	Cultural and Social Foundations of Education	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Starategies for Content Teachers	3
SCE 4330	Secondary Science Teaching Methods	3
SCE 4944	Student Teaching	9

Special Methods and Student Teaching

A student must complete 14 semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses.
SCE 4330 must be taken before SCE 4944.
TSL 4324 **is not offered in the summer terms.**
All courses must be taken prior to student teaching.
Applications to student teach are due in the office of the Director of Student Teaching no later than February 1 for Fall semester placement and September 8 for Spring semester placement.

Bachelor of Science in Social Studies Education: Grades 6-12

Degree Program Hours: 126

Lower Division (60)

See the section above regarding general information, admission and graduation requirements, and new general education requirements (45 hours).

Major Common Prerequisites

American Government	3

Choose four of the six areas for a total of 12 credit hours:

Anthropology	3
Cultural Geography	3
Economics	3
History	3
Psychology	3
Sociology	3

At least one course taken to meet the natural science requirements in General Education and/or prerequisites must include a laboratory component.

Upper Division Program: (66)

Subject Matter Specialization (30)

History	12
Economics	3
Anthropology or Sociology	3
Political Science	3
World Regional Geography	3
Advisor Approved Electives	3

SSE 4380 Developing a Global Perspective 3
Two courses must be in American History (AMH), two in European History (EUH) or World Civilization (WHO), and one in African History (AFH), Asian History, Latin American History (LAH), or Middle Eastern History. This may include courses taken at the lower division as part of the lower division prerequisites.

Professional Education: (36)

EDF 3430	Measurement and Evaluation in the Classroom	3
EDF 4634	Cultural and Social Foundations of Education	3
EDG 3321	General Instructional Decision Making	3
ESE 4322C	Secondary Classroom Management	3
EDP 3004	Educational Psychology	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers	3
SSE 4384	Special Teaching Laboratory: Social Studies	3
SSE 4942	Student Teaching	9

Special Methods and Student Teaching

Students must complete 14 semester hours of foundation courses, and all core courses before enrolling in 4000 level Special Teaching Lab courses.
SSE 4384 is a prerequisite for SSE 4942
TSL 4340 is **not offered in the summer terms.**
All courses must be taken prior to student teaching.

Bachelor of Science in Spanish Education: Grades K-12

Degree Program Hours: 126

Lower Division (60)

See the section above regarding general information, admission and graduation requirements, and new general education requirements (45 hours).

Upper Division Program: (66)

Subject Matter Specialization: (30)

Phonetics or Contrastive Phonology	3
Introduction to Linguistics or Linguistics in Target Language	3
Civilization/Culture	6
Syntax/Composition	12
Literature in Target Language	6

Professional Education: (36)

EDF 3430	Measurement and Evaluation in the Classroom	3
EDG 3321	General Instructional Decision Making	3
EDP 3218	Classroom Management	3
EDF 4634	Cultural and Social Foundations of Education	3

EDP 3004	Educational Psychology	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 4325	Subject Area Reading	3
FLE 4314	Methods of Teaching Modern Language in the Elementary Schools	3
FLE 4375	Methods of Teaching Modern Language at the Secondary Level	3
FLE 4942	Student Teaching	9

Special Methods and Student Teaching

Students must complete the 15 semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll in FLE 4375, and FLE 4314 before enrolling in FLE 4942.

Undergraduate Minor in Education

A program for selected Arts and Sciences and Journalism majors.

Generic Professional Studies

Education Core

EDF 3515	Philosophical & Historical Foundations of Education	3
EDP 3004	Educational Psychology	3
EDG 3321	General Instructional Decision Making	3
ESE 4322C	Secondary Classroom Management	3

Special Methods

Subject Area Specific

English 6-12/TESOL infused

LAE 4335	Special Teaching Lab: English	3

Mathematics

MAE 4333C	Special Teaching Lab: Math	3

Physics/Chemistry/Biology

SCE 4330	Secondary Science Teaching Methods	3

Social Studies

SSE 4384	Special Teaching Lab: Social Studies	3

French/Spanish

FLE 4314	Methods of Teaching Modern Languages in Elementary School	3
FLE 4375	Methods of Teaching Modern Languages at the Secondary Level	3

Art Education

ARE 4316	Special Teaching Lab: Art K-5	3
ARE 4341	Special Teaching Lab: Art 6-12	3

Educational Leadership and Policy Studies

Delia C. Garcia, *Chairperson and Associate Professor, Urban Education*
Dawn Addy, *Director, Center for Labor Research*
Catherine Akens, *Assistant Professor (Courtesy Appointment), Higher Education*
Benjamin Baez, *Associate Professor, Higher Education*
Martha Barantovich, *Instructor, Social Foundations of Education*
Peter J. Cistone, *Professor, Educational Leadership*
Lisa Delpit, *Professor and Director, Center for Urban Education and Innovation*
Erskine S. Dottin, *Professor, Social Foundations of Education*
Helen Ellison, *Assistant Professor, (Courtesy Appointment), Higher Education*
Robert V. Farrell, *Associate Professor, Social Foundations of Education*
Paul D. Gallagher, *Associate Professor, Educational Research, and Executive Vice President, Emeritus*
Roger Geertz Gonzalez, *Assistant Professor, Higher Education*
Lynn Ilon, *Associate Professor, Social Foundations of Education*
Geetane Jean-Marie, *Assistant Professor, Educational Leadership*
Rosa L. Jones, *Associate Professor (Courtesy Appointment), Higher Education*
Larry Lunsford, *Assistant Professor (Courtesy Appointment), Higher Education*
Dominic Mohamed, *Associate Professor, Vocational Education*
Glenda Groodsma Musoba, *Assistant Professor, Higher Education*
Bruce Nissen, *Program Director, Center for Labor Research*
Anthony H. Normore, *Assistant Professor, Educational Leadership*
Tonette S. Rocco, *Associate Professor, Adult Education and Human Resource Development*
Louie Rodriguez, *Assistant Professor, Urban Education and Social Foundations of Education*
Janice R. Sandiford, *Professor, Higher Education*
E. George Simms, *Assistant Professor (Courtesy Appointment), Higher Education*
Douglas H. Smith, *Professor, Adult Education and Human Resource Development*
Joan Wynne, *Associate Director, Center for Urban Education and Innovation*

General Information

The Department of Educational Leadership and Policy Studies has a wide range of graduate programs that are discussed in this catalog. The department coordinates the undergraduate and graduate professional education, educational foundations courses, and core courses which are part of the required common preparation of undergraduate teaching majors at FIU.

In terms of the mission of the College, the Department is responsible for incorporation of educational foundations, multicultural, and/or general methodology studies into professional education programs. The Department is the primary source of the professional studies component.

Certificate Programs

The Department offers certificate programs in:
Labor Studies and Labor Relations

All stated admission requirements, are subject to change without notice, the certification requirement listed in this catalog should be considered minimum. A student who meets these minimum requirements is not automatically assured certification. It is the responsibility of the student to ensure that he/she has met with an advisor. Program faculty should be consulted for academic advisement.

Lower-Division Common Education Prerequisites

EDF 1005	Introduction to Education[1]	3
EDG 2701	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

In addition to EDG 2701, students must take six credit hours with an international or diversity focus in lower division. See individual programs for specific major prerequisite courses.

Admission Requirements: Undergraduate Initial Teacher Preparation Programs

To qualify for admission to the programs, undergraduate candidates must have met all the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower-division GPA of 2.5 or higher, and passing scores on all four parts of the CLAST Exam.

All stated admission requirements are to be considered minimum. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Field Experiences

Most courses offered by the department require observation and participation in selected schools. The course descriptions identify the courses which require in-school classroom experiences guided by the directing classroom teacher and a College of Education faculty member.

The student teaching assignments are fulfilled in designated field centers. This experience is on a full-time basis for one semester. Permission to student-teach is contingent upon successful completion of all other requirements specified in the program of study. Students may be assigned to do their student teaching during either the Fall or Spring semesters of their senior year. There is no student teaching during the Summer semester.

Application for student teaching is the responsibility of the student. Necessary forms may be obtained from the office of the Director of Student Teaching. Deadline dates are July 1 for Spring student teaching and March 1 for Fall placement.

All stated admission requirements are to be considered minimums. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she

has met the requirements.

Graduation Requirements
In the College of Education, all undergraduate students are required to meet the following requirements before they can graduate from their respective teacher education programs.
1. An overall GPA of 2.5
2. Successful demonstration of all the Florida Educator Accomplished Practices – pre-professional level
3. Passing scores on the three tests that make up the Florida Teacher Certification Exam.

For students who passed the CLAST prior to July 1, 2002 the new General Knowledge Test will not be required.

Upon admission to the University and to the College, each student major in the department is assigned an advisor in the major or field of study who will assist the student in constructing a program of study. Upon successful completion of the course work specified in the program of study, the student is awarded the Bachelor of Science Degree with a major in a specified subject matter area or level of schooling and is eligible for regular teacher certification in the State of Florida upon successful completion of requirements specified by the Florida Department of Education.

Program for Vocational-Technical Teacher Education Certification

The College offers Vocational-Technical Teacher certification programs at the initial, professional, and advanced levels leading to the certification for degree and local school district issued certification for non-degree Vocational Industrial Education, Family and Consumer Sciences Education, Health Occupations Education, Public Service and Occupational Specialists. Courses for Endorsements are offered in Work Experience, Diversified Cooperative Training, Vocational Education for Speakers of Other Languages (VESOL), and Limited English Proficient (LEP) populations. Courses are also available in Agriculture Education, Business Education and Marketing Education. Courses for renewal/recency of Professional Teaching and Vocational Administration and Supervision certificates are also offered. Persons seeking initial, Professional and Advanced Vocational Administration and Supervision certification, are encouraged to seek a statement of eligibility from the Florida Department of Education for degreed persons, and local school district vocational certification office for non-degreed teachers where they are teaching or intend to teach prior to taking courses at the university.

The college currently offers, on an annual basis, special programs of vocational teacher certification, designed in cooperation with Miami-Dade and Broward school districts. Please consult with a program advisor for further information.

Program for Advanced Vocational Teacher Certification

Special programs at the advanced master's level in vocational teacher certification, designed in cooperation with local school districts for salary incentives are offered by the college. Please consult with a program advisor for further information.

Labor Studies and Labor Relations Professional Certificate Program

Dawn Addy, *Labor Studies*
Thomas Humphries, *Labor Studies*
Bruce Nissen, *Labor Studies*

The Professional Certificate in Labor Studies and Labor Relations is an eighteen credit course of study designed to offer both pre and post-baccalaureate as well as degree-seeking students the opportunity to gain broad-based knowledge about the field of labor studies with its focus upon the examination of the issues which confront people in the pursuit of their need for rewarding employment as well as insights from the field of labor relations with its emphasis upon the formal interactions between labor and management. In addition, students will obtain specialized knowledge in one of three tracks of professional study: Track I: Labor Relations and Collective Bargaining; Track II: Labor Leadership; or Track III: Workplace Policy.

Students who are interested in the practical as well as the more theoretical issues of labor studies and labor relations will be especially interested in this certificate.

Courses should be taken from at least one discipline in addition to Labor Studies. Minimum of eighteen credit hours for certificate. Courses are to be selected in consultation with and agreement of advisor.

Track I: Labor Relations and Collective Bargaining. A grade of "C" or better is required for all courses. "C-" is not acceptable. At least one course should be taken from a discipline other than Labor Studies.

Required Courses: (6 hours minimum)
All students are required to take LBS 3001, Introduction to Labor Studies, and a minimum of one more course from the list of Core Courses. Additional Core Courses may be used to fulfill electives.

LBS 3470	Labor Contract Administration
LBS 3943	Internship in Labor Studies
LBS 4150	Contemporary Labor Issues
LBS 4401	Labor Contract Negotiations
LBS 4461	Labor Dispute Resolution
LBS 4154	Workers and Diversity
LBS 4501	Labor Law
LBS 4905	Topics in Labor Studies
LBS 4900	Directed Study in Labor Studies

Electives Courses (12 hours):
These courses are to be chosen in consultation with and approval of Certificate advisor. Some courses may require prerequisites. These courses represent a partial list; students should consult with Certificate advisor about current course offerings.

AMH 4500	U.S. Labor History
ECO 2013	Principles of Macroeconomics
ECO 2023	Principles of Microeconomics
ECP 3203	Introduction to Labor Economics
EDF 4780	The Teacher and the Law
EIN 4214	Safety in Engineering
EIN 4261	Industrial Hygiene
EVT 4280	Occupational Safety & Health
HFT 4234	Union Management Relations
INP 2002	Introductory Industrial/ Organizational Psychology
LBS 4610	Cross Cultural Dimensions of Latin American Labor Relations
LBS 4101	Theories of the Labor Movement
LBS 4210	Women and Work in the United States

LBS 4260	Union Leadership and Administration
LBS 4930	Topics in Labor Studies
LBS 4654	Comparative and International Labor Studies
LBS 5464	Labor Arbitration
MAN 4401	Collective Bargaining
MAN 4410	Union Management Relations
PAD 3034	Public Policy and Its Administration
PAD 3438	Communication Skills for Public Administrators
PAD 4024	Concepts and Issues in Public Administration
PAD 4223	Public Sector Budgeting
SPC 2600	Public Speaking
SYO 4360	Work & Society

Track II: Labor Leadership. With the permission of the Certificate Program advisor, a maximum of two courses (6 hours) may be taken on a P/F basis. All other courses must be taken for a letter grade. For all courses taken for a letter grade, a "C" or better is required. "C-" is not acceptable. At least one course should be taken from a discipline other than Labor Studies.

Required Courses: (12 hours minimum)
All students are required to take LBS 3001, Introduction to Labor Studies, and a minimum of three additional courses from the list of Core Courses. Additional Core Courses may be used to fulfill electives.

LBS 3470	Labor Contract Administration
LBS 4150	Contemporary Labor Issues
LBS 4260	Union Leadership/Administration
LBS 4401	Labor Contract Negotiations
LBS 4461	Labor Dispute Resolution
LBS 4154	Workers and Diversity
LBS 4501	Labor Law
LBS 4905	Topics in Labor Studies
LBS 4900	Directed Study in Labor Studies

Electives Courses (6 hours):
These courses are to be chosen in consultation with and approval of Certificate advisor. Some courses may require prerequisites. These courses represent a partial list; students should consult with Certificate advisor about current course offerings.

AMH 4500	U.S. Labor History
EIN 4214	Safety in Engineering
EIN 4261	Industrial Hygiene
LBS 4101	Theories of the Labor Movement
LBS 4210	Women and Work in the United States
LBS 4610	Cross Cultural Dimensions of Latin American Labor Relations
LBS 4654	Comparative and International Labor Studies
LBS 4900	Directed Study in Labor Studies
LBS 5464	Labor Arbitration
PAD 3034	Public Policy and Its Administration
PAD 3438	Communication Skills for Public Administrators
PAD 4223	Public Sector Budgeting
SPC 2600	Public Speaking
SYO 4360	Work & Society

Track III: Workplace Policy. A grade of "C" or better is required. "C-" is not acceptable. At least one course should be taken from a discipline other than Labor Studies.

Required Courses: (6 hours minimum)
All students are required to take LBS 3001, Introduction to Labor Studies, and a minimum of one more course from the list of Core Courses. Additional Core Courses may be used to fulfill electives.

LBS 3943	Internship in Labor Studies
LBS 4154	Workers and Diversity
LBS 4101	Theories of the Labor Movement
LBS 4210	Women and Work in the United States
LBS 4501	Labor Law
LBS 4654	Comparative and International Labor Studies
LBS 4905	Topics in Labor Studies
LBS 4900	Directed Study in Labor Studies
LBS 4610	Cross Cultural Dimensions of Latin American Labor Relations
INR 3045	Global Challengers of Refugees and Migrants
MAN 3701	Business and Society
MAN 4741	Business Environment and Policy Formation
PAD 3034	Public Policy and Its Administration
PUP 4004	Public Policy (U.S.)
SYO 4360	Work and Society

Electives Courses: (12 hours)
These courses are to be chosen in consultation with and approval of Certificate advisor. Some courses may require prerequisites. These courses represent a partial list; students should consult with Certificate advisor about current course offerings.

EDF 4780	The Teacher and the Law
EVT 4280	Occupational Safety/Health
HFT 3603	Law as Related to Hospitality Industry
INP 2002	Introduction to Industrial/Organizational Psychology
LBS 3470	Labor Contract Administration
LBS 4150	Contemporary Labor Issues
LBS 4401	Labor Contract Negotiations
LBS 4461	Labor Dispute Resolution
PAD 4024	Concepts/Issues Public Administration
PAD 4223	Public Sector Budgeting
PAD 4432	Administration Leadership and Behavior
POS 2042	Government & Politics of the U.S.
POS 4122	State Government and Politics
PUP 4004	Public Policy: U.S.
SYA 3300	Research Methods
SYP 4421	Man, Society and Technology

Educational and Psychological Studies

Leonard Bliss, *Chairperson and Professor, Educational Research Methodology*
Patricia Barbetta, *Associate Professor, Special Education*
Nicholas Benson, *Assistant Professor, School Psychology*
Linda P. Blanton, *Professor, Special Education*
Judith Cohen, *Director in the Offices of Field Experiences*
Elizabeth Cramer, *Assistant Professor, Special Education*
Maureen Kenny, *Associate Professor, Counselor Education*
Philip J. Lazarus, *Associate Professor, School Psychology*
Luretha F. Lucky, *Associate Professor, Special Education*
Adriana McEachern, *Associate Dean and Associate Professor, Counselor Education*
Rochelle Michel, *Assistant Professor, Measurement and Evaluation*
Bryan Moseley, *Assistant Professor, Educational Psychology*
Martha Pelaez, *Professor, Educational Psychology*
Howard Rosenberg, *Associate Professor, Special Education*
Monika Shealey, *Assistant Professor, Special Education*
Abbas Tashakkori, *Chairperson and Professor, Educational Research Methodology*
Diana Valle-Riestra, *Assistant Professor, Special Education*
Jethro W. Toomer, *Professor, Counselor Education*

General Information

The Department of Educational and Psychological Studies offers a variety of programs to prepare teachers of students who have exceptional needs.
Departmental and program information can be found at our website: **http://www.fiu.edu/~edpsy**.

All programs require substantial supervised fieldwork. State of Florida certification requirements are met for all programs preparing school personnel. All programs also have the necessary coursework and fieldwork to earn an ESOL (English Speakers of Other Languages) endorsement.

All stated admission requirements are to be considered minimal. A student who meets these minimal requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

The Department offers the following undergraduate and certificate program:

Bachelor of Science

Degree Program Hours: 127

Exceptional Student Education and ESOL Endorsement

Bachelor of Science in Special Education

The undergraduate special education programs' specializations utilize a field-centered training model leading to approval for State of Florida Certification Exceptional Student Education with ESOL Endorsement.

The special education program recognizes that students with disabilities are entitled to a free and appropriate public education, that all students are to be educated in the least restrictive yet most enabling environment and are to be mainstreamed to the greatest extent possible. Special educators also provide services to preschool children and adults.

Given this context, the undergraduate special education program emphasizes the development of the following competencies to be demonstrated in both the University and field settings:

1. Identifying and diagnosing students with exceptionalities.
2. Prescribing and implementing appropriate individual educational plans to meet these problems.
3. Effecting appropriate instruction for children with exceptionalities in the least restrictive environment.
4. Managing classroom behavior.
5. Planning for inclusion and collaboration with parents and other education personnel.
6. Working with students with disabilities from culturally and linguistically diverse backgrounds.

Diagnostic-prescriptive teaching and management skills are to be demonstrated with students with mild disabilities who range in age from infancy to adulthood, and who represent multicultural, multilingual backgrounds. Special education majors may have field work with students who have mild, moderate, and severe disabilities.

New admission requirements

To qualify for admission to the program, undergraduates must have met all the lower division requirements including having passed the CLAST, and have a 2.5 GPA or above.

The undergraduate special education program is offered in a sequence. Although, there is flexibility in the schedule, there are many courses that have to be taken at a certain time in the program. In addition, senior block and student teaching are offered ONLY at Fall and Spring semesters, respectively. It is **imperative** that the students work closely with their advisors to take courses in the appropriate sequence. Faculty will advise students on special education program course sequence prior to official acceptance. Please consult your advisor for additional information.

New graduation requirements

Graduation requirements in effect for students admitted on or after Fall 2001 include successful demonstration of the Florida Educator Accomplished Practices, GPA 2.5 or above and passing scores on all three sections of the Florida Teacher Certification Exam.

Exceptional Student Education (67)

Upper Division: Professional Studies Common Core

EDP 3004	Educational Psychology	3
EDF 4634	Cultural and Social Foundations of Education	3
EDG 3321	General Instructional Decision Making	3

Upper Division: Program Content Courses

TSL 3370	ESOL Issues: Principles and Practices I	3
TSL 4141	ESOL Issues: Principles and Practices II	3

EEX 3243	Instructional and Assistive Technology in Special Education	3
EEX 4240	Literacy in Special Education	3
EEX 3012	Educational Needs of Students with Exceptionalities	3
EEX 3071	Teaching Students with Exceptionalities in Inclusive Settings	3
SPA 3000	Acquisition of Speech and Language Skills	3
EEX 3221	Assessment of Students with Exceptionalities	3
EEX 4601	Behavioral Approaches to Learning and Classroom Management I	3
EDP 3218	Classroom Management	3
RED 4150	Teaching Beginning Literacy	3
RED 4325	Subject Area Reading	3
MAE 4310	Teaching Elementary Math	3
EEX 4940	Field Experience in Special Education	0
EEX 3066	Instructional Practices in Exceptional Student Education I	3
EEX 4067	Instructional Practices in Exceptional Student Education II	3
EEX 4810	Supervised Practicum in Special Education[1,2]	1
EEX 4861	Student Teaching	9
EEX 4936	Student Teaching Seminar	3

Note: Courses within the undergraduate program require field placement during school hours. RED 4150, RED 4311, RED 4325, and MAE 4310 require registration in corequisite EEX 4940. In addition to a full-time student teaching placement during the final semester, students engage in a Senior Block experience the fall semester of their senior year. This experience requires a special education field placement that includes 160 hours (20 hours per week for 8 weeks) and class attendance at the University. Permission to student teach is contingent upon satisfactory completion of all requirements specified in the program. Applications to student teach must be filed in the office of the Director of Internship and Student Teaching by the date indicated in the student teaching office preceding the Spring Student Teaching semester. **Please confirm this due date with your advisor**. The due date is subject to change.

All stated admission requirements are to be considered minimal. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Health, Physical Education and Recreation

Laura Blitzer, *Associate Professor, Physical Education*
Michelle A. Cleary, *Assistant Professor, Advanced Athletic Training/Sports Medicine*
Charmaine DeFrancesco, *Associate Professor, Physical Education and Sport Management*
Jenna Doherty-Restrepo, *Instructor, Athletic Training/Sports Medicine*
Richard Lopez, *Associate Professor, Exercise Physiology*
Alexis McKenney, *Associate Professor, Recreational Therapy*
Brady Tripp, *Assistant Professor, Athletic Training/Sports Medicine*
Robert M. Wolff, *Associate Dean and Professor, Parks and Recreation Management and Sport Management*

General Information

The Department of Health, Physical Education and Recreation offers five programs with several tracks which lead to a Bachelor of Science degree. These programs include: Exercise and Sports Sciences, Parks and Recreation Management, Physical Education for Grades K-12, Sports Management, and Strength and Conditioning.

All stated admission requirements, which are subject to change, should be considered minimum. A student who meets these minimum requirements is not automatically assured admission. It is the responsibility of the student to ensure that he/she has met the requirements. Program faculty should be consulted for academic advisement.

Bachelor of Science in Exercise and Sports Sciences

Degree Program Hours: 120

Exercise Physiology Track

The undergraduate Exercise Physiology Track has two specializations: the Cardiac Rehabilitation/Adult Fitness Specialization and the Strength and Conditioning/Adult Fitness Specialization. The Cardiac Rehabilitation/ Adult Fitness Specialization focuses on the physiological effects of exercise and training in the prevention and rehabilitation of cardiac disorders. The Strength and Conditioning/Adult Fitness Specialization focuses on the effects of training on the improvement of athletic performance. The specialization also emphasizes the role of exercise in the prevention of disease. We are recognized by the National Strength and Conditioning Association as being an institution that provides and prepares individuals for the Strength and Conditioning profession.

Lower Division Preparation

To qualify for admission into the program, students must meet all published admission requirements which include: program prerequisites, General Education/Gordon Rule, GPA, and CLAST.

Common Prerequisites:

Students entering college prior to the Fall of 2002, with 36 semester hours or more, must meet the university's General Education Requirements. Students entering FIU as a freshman or transferring with less than 36 semester hours must meet FIU's Core Curriculum Requirements. To satisfy the 8 semester hour natural sciences requirement, the student must take one restricted selection from the biological sciences with its corresponding lab and one restricted selection from the chemical sciences with its corresponding lab. The restricted selection in the biological sciences include general biology I with its corresponding lab, human biology with its corresponding lab, foundations of physiology with its corresponding lab, or human anatomy and physiology I with its corresponding lab. The restricted selection from the chemical sciences include general chemistry I with its corresponding lab, survey of chemistry with its corresponding lab, and chemistry and society, with its corresponding lab.

Students entering college in the Fall of 2002 or later, will be required to meet the Florida State University System's revised Program Prerequisites for Exercise and Sport Science Programs. These prerequisites include:

A. Human Anatomy and Physiology I or Human Anatomy
B. Human Anatomy and Physiology I Lab or Human Anatomy Lab
C. Human Anatomy and Physiology II or Human Physiology
D. Human Anatomy and Physiology Lab II or Human Physiology Lab
E. College Algebra or higher level math class
F. Statistics or Precalculus
G. General Psychology
H. General Nutrition
I. Survey of Chemistry or higher level chemistry class
J. Survey of Chemistry or higher level chemistry Lab

Upper Division Courses: (60)

Cardiac Rehabilitation/Adult Fitness Specialization

Students entering college prior to the Fall 2002 must meet the following upper divison requirements:

PET 3325C	Anatomy for Exercise and Sports Sciences
PET 3325L	Anatomy for Exercise and Sports Sciences Lab
PET 3353	Physiology for Exercise and Sports Sciences
PET 3353L	Physiology for Exercise and Sports Sciences Lab
PET 4622	Athletic Injuries
HUN 2201	Principles of Nutrition
PET 3351	Exercise Physiology
PET 3310	Kinesiology
PET 4632	Therapeutic Exercise for the Injured Athlete
PET 4632L	Therapeutic Exercise for the Injured Athlete Lab
CGS 2060	Introduction to Microcomputers
	or
Demonstrated Competency in Microcomputers	
PEP 4111	Health/Fitness Instructor
PEM 4103	Personal Training
PET 4354	Advanced Exercise Physiology
PET 4450	Evaluation in Exercise Physiology
PET 4384	Exercise Test Technology
PET 4389	Advanced Strength and Conditioning
PEP 4114	Exercise Prescription
EDF 4xxx	Applications of Educational Research
PET 4940	Internship in Exercise Physiology (6-9 credits)

Electives (0-3 credits)

The upper division requirements for students entering college during or following the Fall 2002, are slightly modified. Since these students will take anatomy/anatomy lab, physiology/ physiology lab, and nutrition as part of the program prerequisites, they will have an additional eleven credits of electives.

Strength and Conditioning/Adult Fitness Specialization

Students entering college prior to the Fall 2002 must meet the following upper division requirements:

PET 3325C	Anatomy for Exercise and Sports Sciences
PET 3325L	Anatomy for Exercise and Sports Sciences Lab
PET 3353	Physiology for Exercise and Sports Sciences
PET 3353L	Physiology for Exercise and Sports Sciences Lab
HUN 2201	Principles of Nutrition
PET 4622	Athletic Injuries
PET 3351	Exercise Physiology
PET 3310	Kinesiology
PET 4632	Therapeutic Exercise for the Injured Athlete
PET 4632L	Therapeutic Exercise for the Injured Athlete Lab
CGS 2060	Introduction to Microcomputers
	or
Demonstrated Competency in Microcomputers	
PEP 4111	Health/Fitness Instructor
PEM 4103	Personal Training
PET 4354	Advanced Exercise Physiology
PET 4450	Evaluation in Exercise Physiology
PET 4389	Advanced Strength and Conditioning
PET 4554	Comprehensive Conditioning of Elite Athletes
EDF 4xxx	Applications of Educational Research
PET 4940	Internship in Exercise Physiology (6-12 credits)

Electives (0-6 credits)

The upper division requirements for students entering college during or following the Fall of 2002, are slightly modified. Since these students will take anatomy/anatomy lab, physiology/ physiology lab, and nutrition as part of the Program Prerequisites, they will have an additional eleven credits of electives.

Strength and Conditioning Track

The Strength and Conditioning track is housed within the Exercise Physiology Program. The courses offered are designed to give the student both the theoretical and practical application of skills and knowledge required to work in the field of Strength and Conditioning. The program takes an expanded view of strength training as it relates to all populations including athletes, fitness enthusiasts, sedentary individuals and special cases. Courses are geared as both preparation courses for certification and extensions of applied research in field application. Since the field of strength training is continually changing, courses are frequently updated to reflect the current industry practices.

Florida International University has been recognized by the National Strength and Conditioning Association (NSCA) as offering a program that prepares individuals to work in the field of Strength and Conditioning. Florida International University is also recognized by the National Strength Professionals Association (NSPA) as provided a comprehensive curriculum in Strength and Conditioning.

Upper Division Program: (60)

ZOO 3731	Human Anatomy	3
PCB 3703	Human Physiology I	3
PCB 3704	Human Physiology II	3
HUN 2201	Principles of Nutrition	3
PET 3310	Kinesiology	3
PET 4622	Athletic Injuries	3
PET 4622L	Athletic Injuries Lab	1
PEP 4114	Exercise Prescription	3
PET 4384	Exercise Test Technology	3
PET 4383	Evaluation in Exercise Physiology	3
PET 4389	Advanced Strength and Conditioning	3
PEM 4103	Advanced Personal Training	3
PET 4214	Sports Psychology	3
PEP 4114	Exercise Prescription	3
PET 4601	Comprehensive Conditioning of the Elite Athlete	3
PET 4940	Internship in Strength and Conditioning	1-15
Advisor Approved Electives		1-9

Bachelor of Science in Parks and Recreation Management

Degree Program Hours: 120

The Parks and Recreation undergraduate curriculum offers professional preparation programs designed to prepare students for employment throughout the leisure service delivery system. The program is oriented towards direct services, supervisory, and management employment opportunities.

A student may elect to gain competencies in Leisure Services Management, Parks Management, or Recreational Therapy.

Lower Division Preparation

To qualify for admission into the program, students must meet all published admission requirements which include: program prerequisites, General Education/Gordon Rule, GPA, and CLAST. Students who do not meet the College admission requirements may request a formal review by: (a) writing an admission appeal letter to the Department requesting a review of the applicant's records and indicating the reason(s) special consideration should be granted to the applicant; (b) forwarding three letters of recommendation; and (c) participating in a formal interview with departmental/program faculty or representatives.

Required Core Courses: (33)

LEI 3001	Leisure and Recreation in America	3
LEI 3707	Inclusive Recreation Services	3
LEI 3542	Principles of Parks, Recreation and Sport Management	3
LEI 3800	Liability and Law in Leisure, Recreation & Sports	3
ACG 3024	Financial Accounting for Managers	3
	or	
PAD 4223	Public Sector Budgeting	3
LEI 4940	Internship	9
LEI 4941	Internship II	9

Leisure Service Management Track: (27)

LEI 3402	Program Development in Recreation and Sports	3
LEI 3630	Care, Maintenance and Design	3
MAN 4701C	Business and Society	3
LEI 4560	Leisure Services Marketing	3
LEI 4590	Seminar in Parks, Recreation and Sport Management	3
LEI 4842	Private & Commercial Sport and Recreation Management	3
Advisor approved electives		9

(Students are encouraged to use electives toward a Minor in Business, Entrepreneurship, Tourism Management, Public Administration, or Marketing, or Communication).

Parks Management Track: (27)

LEI 3402	Program Development in Recreation and Sports	3
LEI 3630	Care, Maintenance and Design	3
Two Environmental Science Courses and Labs[1]		6-8
Two Environmental Social Science Courses[1]		6
Two Environmental Electives[1]		6
Advisor approved electives:		1-3

[1]the above six courses qualify you for an Environmental Studies Certificate.

Recreational Therapy Track Courses (27)

CLP 4144	Abnormal Psychology	3
LEI 3703	Introduction to Therapeutic Recreation	3
LEI 3724	Therapeutic Recreation & Facilitation Techniques	3
LEI 4705	Programming for Therapeutic Recreation	3
LEI 4711	Client Assessment, Evaluation and Documentation in Therapeutic Recreation	3
LEI 4720	Problems, Issues, and Concepts in Therapeutic Recreation	3
LEI 4813	Leisure Education and Facilitation Techniques	3
PET 3351	Exercise Physiology	3
Electives		3

Required Prerequisites:

PET 3325C	Anatomy for the Exercise and Sports Sciences	3
PET 3325L	Anatomy for the Exercise and Sports Sciences Lab	1
CGS 2060	Introduction to Microcomputers	3
DEP 2000	Human Growth and Development: Introductory Developmental Psychology	3

Required Corequisites for Recreational Therapy:

The student must have completed a minimum of 18 semester hours from three of the following six areas: adaptive physical education, biological/physical science, human services, psychology, sociology, or special education. Courses may be completed at the lower division. All internships must be done under the supervision of a full time Certified Therapeutic Recreation Specialist (CTRS).

Recreation Management Certificate Program

This is a professional certification program, which does not require an interdisciplinary relationship. However, given the interdisciplinary nature of the Recreation Management program, students will have exposure to various fields of study (i.e. finance & budgeting, marketing, strategic planning, management, human resource management, law & liability, etc.).

Courses and Requirements: (18)

LEI 3630	Care, Maintenance and Design	3
LEI 3402	Program Development in Recreation and Sports	3
LEI 3542	Principles of Parks, Recreation and Sports Management	3
LEI 3800	Liability and Law in Leisure, Recreation and Sports	3
LEI 4560	Leisure Service Marketing	3
PAD 4223	Public Sector Budgeting	3
	or	
LEI 3xxx	Financial Management in Parks, Recreation and Sports	3

Bachelor of Science in Physical Education: Grades K-12 (120)

This program is designed for individuals who wish to become certified to teach physical education in the elementary and middle, and secondary schools. Upon successful completion of the program and the requirements specified by the Florida Department of Education, degree recipients are eligible for regular teacher certification in the State of Florida. Students entering the College of Education, Fall 2001 and beyond, must pass all sections of the Florida Teacher Certification Exam to graduate.

Admission Requirements: Undergraduate Initial Teacher Preparation Programs

To qualify for full admission to the programs, undergraduate candidates must have met all the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower-division GPA of 2.5 or higher, and passing scores on all four parts of the CLAST Exam.

All stated admission requirements are to be considered minimum. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Lower Division Requirements: Initial Teacher Preparation Programs

Students should see an advisor at the start of their required courses and may apply for admission if deficiencies are not greater than eight semester hours. However, all program prerequisites and all program courses must be completed before a student will be permitted to student teach. Students must meet all College of Education admission requirements.

Lower Division Program Requirements:

Anatomy and Physiology I with Lab	3-4
Skills and Practices Courses in Physical Activities	4-5

Conditioning, Fitness and Wellness		3

Lower-Division Common Education Prerequisites

EDF 1005	Introduction to Education[1]	3
EDG 2701	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology, or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

In addition to EDG 2701, students must take six credit hours with an international diversity focus in lower division. All required courses must be completed with a grade of 'C' or higher.

Upper Division Program: (61)

Professional Education: (18)

EDF 4634	Cultural and Social Foundations of Education	3
EDG 3321	General Instructional Decision Making	3
EDP 3004	Educational Psychology	3
RED 4325	Reading in the Content Area	3
TSL 4234	ESOL Issues and Strategies for Content Teachers	3
ESE 4343	Classroom Management	3

Subject Matter Specialization: (46)

DAE 3371	Dance in the Elementary School	3
PEO 4041	Games & Gymnastics in the Elementary School	3
PET 3310	Kinesiology	3
PET 3351	Exercise Physiology	3
PET 3640	Adapted Physical Education	3
PET 4510	Evaluation in Physical Education	3
PEO 4004	Principles and Practices of Coaching	3
PET 4622	Athletic Injuries	3
PET 4050	Motor Learning and Development	4
PET 4442	Physical Education in the Secondary School	3
PEP 4102	Applied Concepts of Fitness and Health	3
PET 4401	Administration of Physical Education and Sport	3
PET 4929	Student Teaching Seminar	3
PET 4945	Student Teaching Grades 6-12 (or PET 4944 or PET 4943)	9

Applications for student teaching are due in the office of the Director of Student Teaching by July 1 for Spring semester placement, and by February 1 for Fall semester placement.

Graduation Requirements

In the College of Education, all undergraduate students are required to meet the following requirements before they can graduate from their respective teacher education programs.

1. An overall GPA of 2.5
2. Successful demonstration of all the Florida Educator Accomplished Practices (FEAPS) - preprofessional level
3. Passing scores on the three tests that make up the Florida Teacher Certification Exam (FTCE).

For students who passed the CLAST exam prior to July 1, 2002 the new General Knowledge Test will not be required.

Sports Management Track

The undergraduate sports management track prepares individuals for positions in sports-related fields. The core program emphasizes the development of knowledge and skills needed to succeed in sports-related environments. Program electives allow students to pursue a specialization in an area of interest.

Lower Division Preparation

It is recommended that students complete introductory accounting and management courses, as well as, a variety of sports skill classes.

To qualify for admission into the program, students must meet all College of Education published admission requirements which include: program prerequisites, General Education/Gordon Rule, 2.5 GPA, and CLAST. Students who do not meet the College admission requirements may request a formal review by: filing for a waiver. Contact the Office of Student Services in EB 221 for information.

Upper Division Program: (60)

REQUIRED CORE COURSES 45 Credits

PET 4214	Sport Psychology	3
PET 4251	Sociology of Sport	3
LEI 3402	Program Development in Recreation and Sports	3
LEI 3800	Liability and Law in Leisure, Recreation & Sports	3
LEI 3542	Principles of Parks, Recreation, and Sport Management	3
LEI 4560	Leisure Services Marketing	3
ENC 4240	Business Letters and Reports	3
PAD 4223	Public Sector Budgeting	3
	or	
ACG 3024	Financial Accounting for Managers	3
	or	
LEI xxxx	Budgeting in Parks, Rec & Sport	3
PET 4946	Intership in Sports Management[1]	9
PET 4401	Administration of Sport	3
	or	
LEI 3524	Human Resource Management	3
LEI 3707	Inclusive Recreational Services	3
LEI 3860C	Computer App. For Rec & Sport	3
LEI 4931	Special Topics – Sport Operations	3

Emphasis Area: 15 credits

Select an emphasis area in Sport Applications, Recreational Sport or Business

Sport Applications Emphasis: 15 credits

HUN 2201	Principles of Nutrition	3
	or	
HUN 3414	Nutrition for Athletes	3
PEM 4401	Advanced Personal Training	3
	or	
PEP 4102	Applied Concepts of Fitness	3
PEO 4004	Principles of Coaching	3
PET 4622	Athletic Injuries	3
PET 4050	Motor Learning and Develop	3
	or	
PET 4207	Considerations in Youth Sports	3

Recreational Sport Emphasis: 15 credits

LEI 3001	Leisure and Recreation in America	3
LEI 4438	Recreational Sports Programming	3
LEI 4543	Recreation and Sport Facilities	

	Management	3
LEI 4590	Seminar in Parks, Recreation and Spt. Man.	3
PET 4207	Considerations in Youth Sports	3

Business Emphasis Leading to Minor in Business: 15 credits

Option 1: Business Minor for Non-Business Students

To meet the increasing demand for business courses by students from other colleges and disciplines, the College of Business Administration offers a business minor. Upon completing the following five courses with grades of "C" or higher, a student will be conferred a "minor in business" concurrently with bachelor's degree in his/her major area. It is the student's responsibility to meet the prerequisites for the courses in his/her minor.

The following courses are required:

ACG 3024	Accounting for Managers and Investors
FIN 3005	Introduction to Business Finance
	or
FIN 3105	Personal Investment Management
	or
FIN 3140	Personal Financial Management
CGS 3300	Introduction to Information Systems
MAN 3025	Organization and Management
MAR 3023	Marketing Management

Option 2: Non-business Entrepreneurship Minor

The Non-business Entrepreneurship Minor is designed for students not enrolled in the College of Business Administration who are interested in developing new business initiatives and in acquiring self-reliance in the business world.

The following five courses must be completed:

GEB 4113	Entrepreneurship
ACG 3024	Accounting for Managers and Investors
FIN 3140	Personal Financial Management
MAN 4802	Small Business Management
MAR 3023	Marketing Management

Option 3: Marketing Minor

Degree Program Requirements

Qualified undergraduate students who are not business majors and who have a 2.50 cumulative GPA must apply to the College of Business Administration to request a minor in Marketing.

To earn a minor in Marketing, students must complete 15 credit-hours of course work as follows:

The following courses are required:

MAR 3023	Marketing Management
MAR 4503	Consumer Behavior

In addition, students must select and complete any three of the courses below:

MAR 4025	Marketing of Small Business Enterprises
MAR 4144	Export Marketing
MAR 4156	International Marketing
MAR 4203	Marketing Channels
MAR 4231	Retailing Marketing
MAR 4323	Intergrated Marketing Comminication
MAR 4333	Promotional Strategy
MAR 4334	Advertising Campaign Management
MAR 4400	Personal Selling
MAR 4403	Sales Management
MAR 4613	Managing Marketing Information
MAR 4803	Cases in Marketing Management
MAR 4853	Marketing Strategy
MAR 4722	e-Marketing
MAR 4676	Cyber Marketing
MAN 4065	Business Ethics
MAN 4731	Modern Business History
MAR 4001	Marketing Yourself in Today's Competitive Job Market
MAR 4002	Tools for Managing Marketing Information
MAR 4071	Current Issues I
MAR 4072	Current Issues II

Course Descriptions

Definition of Prefixes

ADE - Adult Education; ARE - Art Education; BTE - Business Teacher Education; CGS - Computer Applications; CHD - Child Development; DAE - Dance Education; EDA - Education: Educational Leadership; EDE - Education: Elementary; EDF - Education: Foundations; EDG - Education: General; EDH - Education - Higher; EDP - Education: Psychology; EDS - Education: Supervision; EEC - Education: Early Childhood; EED - Education: Emotional Disorders; EEX - Education: Exceptional Child, Core Competencies; EGC - Education: Guidance and Counseling; EGI - Education: Exceptional Child, Gifted; EIA - Education: Technology; ELD - Education: Specific Learning Disabilities; EME - Education: Technology and Media; EMR - Education: Mental Retardation; ESE - Education Secondary; EVT - Education: Vocational Technical; FAD - Family Development; FLE - Foreign Language Education; HEE - Home Economics Education; HHD - Housing; HLP - Health, Leisure, and Physical Education; HME - Home Management Equipment; HOE - Health Occupations Education; LAE - Language Arts and English Education; LBS-Labor Studies; LEI - Leisure; MAE - Mathematics Education; MHS-Mental Health Services; MUE - Music Education; PEL - Physical Education; PEM - Physical Education Activities; PEO - Physical Education Activities; PEP - Physical Education Activities; PEQ - Physical Education Professional Water; PET - Physical Education Therapy; RED - Reading Education; SCE - Science Education; SPS - School Psychology; SSE - Social Studies Education; TSL - TESOL.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering; ALT-alternate years; AR-as required.

ADE 4274 Organizational Training and Development (3). Describes role of employee training/development in a variety of organizations. History/current trends and issues/future directions noted. Training and development in specific organizations emphasized.

ADE 4384 The Adult Learner (3). Identifies the characteristics and evolving development of adults. Reviews the primary learning theories and analyzes those most applicable for adults as learners.

ARE 3313 Experiencing Art in the Elementary Schools (3). Knowledge and skills for the development and implementation of art experiences in the elementary curriculum for the elementary classroom teacher. Lab fee required. (F,S,SS)

ARE 4316 Special Teaching Laboratory: Art in Grades K-6 (3). Development of instructional skills, techniques, and strategies for teaching art in the elementary school. Laboratory and field participation required. Lab fee required. (F)

ARE 4341 Special Teaching Laboratory: Art in Grades 7-12 (3). Development of instructional skills, techniques, and strategies for teaching art in the middle and senior high school. Laboratory and field participation required. Lab fee required. (F)

ARE 4459 New Media - Crafts in the Classroom (3). Understand the role and evolution of crafts in the schools, their function in child development, planning, assessment and basic production techniques with various media. Lab fee required. (F,S)

ARE 4848 Concepts in Art Education (3). Understand philosophies and events that influenced the development of Art Education and the application of Discipline-Based Art Education and Aesthetic Education to the classroom. (F,SS)

ARE 4920 Advanced Workshop in Art Education – Technology for the Visual Arts Educators (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4925 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in a laboratory of field setting. Lab fee required.

ARE 4926 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4927 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4928 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4929 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4940 Student Teaching in Art (9). Supervised teaching in an elementary and secondary school. (S)

CHD 3220 Child Development: Infancy and Early Childhood (3). Systematic study of total developmental process in the child from conception through early childhood emphasizing the effects of home and family environment. Includes observational experiences. (AR)

CHD 4210 Middle Childhood and Adolescent Development (3). Extension of the study of developmental patterns of children, with emphasis on physical, intellectual, social, and emotional maturation through adolescence. Analysis of environmental and home influences. (AR)

DAE 3300 Dance in the Elementary, Middle, and Secondary School (3). Includes content and methods for teaching dance in grades K-12. Emphasis on structured multicultural dance forms including folk and square dance, social dance, and line dancing, field experience required (20 hours). Prerequisite: Dance Departments. (AR)

DAE 3320 Dance in the Elementary and Middle School (3). The study of the scope, structure, and sequence of the dance program for grades K-8. Emphasis on educational dance and simple forms of folk and square dance. Field and laboratory experiences required. (F)

DAE 3940 Supervised Teaching in Dance (3-9). Practical application in a clinical setting of knowledge acquired in the classroom. Hours may vary.

EDE 3302 Issuses in Elementary Education (3). Introduces issues related to elementary school teaching, assessment, management and policy. Part of Block I. (F,S,SS)

EDE 4936 Senior Seminar in Elementary Education (3). Provides discussion of classroom management, discipline, school-community relations, and school law required of undergraduate elementary education majors while student teaching. Prerequisite: Successful completion of all program requirements for student teaching. Corequisite: Blocks I through IV. (F,S)

EDE 4943 Student Teaching Internship (9). Provides experience in an elementary school where the student assumes all teaching responsibilities for a minimum of ten weeks. Required of undergraduate elementary education majors as culmination of program. Prerequisite: Successful completion of all program requirements. Corequisite: EDE 4936. (F,S)

EDF 1005 Introduction to Education (3). Introductory survey course designed to review education and teaching in America from multiple perspectives. Required of lower division education majors. Prerequisite to admission in teacher education programs. Field experience required. (F,S,SS)

EDF 3430 Measurement and Evaluation in the Classroom (3). Basic concepts in educational measurement, utilizing measurement in instruction, construction of teacher-made tests and other classroom assessments, portfolio and performance assessment, interpretation of standardized test scores. Required in all Teacher Ed Programs.

EDF 3515 Philosophical and Historical Foundations of Education (3). Initial experience in professional and pedagogical studies for persons preparing for PK-12 classrooms as well as other school personnel. Special attention will be given to the exploration of, and the implications for, educational praxis. Field experience required. (F,S,SS)

EDF 3521 Education in History (3). An examination of the concepts of childhood, and process of social initiation in differing historical America contexts. This course examines the transformation of the American public school system as it reflects the social, political and economic character of the development of the nation from 1620 to the present. Students will read commentaries and primary sources and explore and consider the relationships between education and national policies. **Satisfies the Societies and Identities requirement of the University Core Curriculum.**

EDF 4490C Understanding Educational Research (3). Evaluation and utilization of research results, evaluating the appropriateness of research design, sampling, measurement, data collection/analysis, and inferences for answering research questions.

EDF 4634 Cultural and Social Foundations of Education (3). Examines the cultural and social realities of teaching and learning in the U.S. Questions of class, race, ethnicity, gender and language are discussed in relation to effective school, teacher, and student performance. Prerequisites: EDG 3321 and EDG 3321L, EDF 3515, EDP 3004, and senior standing. Field experience required. (F,S,SS)

EDF 4780 The Teacher and the Law (3). Analysis of legal rights and responsibilities in the classroom, laws related to liability, contract, records, discipline, due process, handicapped, and schools. (AR)

EDF 4953 Art Education Abroad in France (3-6). Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad.

EDF 4954 Art Education Abroad in China (3). Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad.

EDG 1700 Introduction to Multicultural Education: Making Choices (3). Designed to introduce prospective teachers to the terms, concepts, elements, purposes, and objectives of multicultural education programs. Corequisite: EDF 2930. (AR)

EDG 2701 Teaching Diverse Populations (3). Introductory course designed to present the theories and realities of teaching diverse populations. Prerequisite to admission in teacher education programs. Field experience required. (F,S,SS)

EDG 3321 General Instructional Decision Making (3). Instructional decisions facing classroom teachers including HOTS, multiple intelligence, learning styles, technology, theory and models of instruction. Corequisite: EDG 3321L. Field experiecne required. (F,S,SS)

EDG 3321L General Instructional Decisionmaking Laboratory (3). Lab builds on theory and work class concepts through video simulations, feedback, field work, and interaction. Corequisite: EDG 3321. (F,S,SS)

EDG 4702 Educational Psychology of Multicultural Students (3). Introduction to principles and procedures utilized in teaching students from multicultural communities. Prerequisites: Associate degree equivalent and Educational Psychology. Corequisite: EDG 4703. (AR)

EDG 4703 Educational Psychology Supervised Field Experience with Multicultural Students (3). Demonstration of competencies learned throughout study program in educational psychology of multicultural students. Prerequisite: Associate degree of equivalent. (AR)

EDP 3004 Educational Psychology (3). Application of principles for understanding individual differences, learning, adjustment, classroom environments, and assessment to instructional and educational issues. Challenges of diversity and teacher effectiveness are addressed. Field experience required. (F,S,SS)

EDP 3218 Classroom Management (3). Provides teachers understanding, skills, and dispositions for successful classroom management. Prerequisite: EDP 3004. Corerequisite: EDG 3321. (F,S,SS)

EDP 3501 Child Development (3). Examination of child growth and development from conception to age of 8. Prerequisite: EDP 3004.

EDP 4502 Early Social and Emotional Development (3). Personality, social and emotional development in early childhood. Prerequisite: EDP 3501.

EDP 4503 Assessment, Evaluation, and Diagnosis of the Young Child (3). Intellectual, emotional and personality assessment of young children. Prerequisite: EDP 3501.

EEC 3204 Issues in Early Childhood Education (3). Introduces issues related to schooling of children age three through grade 3. This course has a field component. Students should apply to Field Experiences Office of COE to be placed in a school. (F,S)

EEC 3400 Family Literacy and the Young Child (3). This course will provide an understanding of family literacy within the context of language and culture and introduce students to school and home based literacy methods.

EEC 3403 Special Needs of Children and their Families (3). Focus on understanding family problems, children's behavior and intervention methods.

EEC 3408 Communities, Families and Young Children (3). This course will focus on the varying cultural contexts of young children and the influences these environmental elements have on child development.

EEC 4005 Early Childhood Education Programs (3). Philosophy and theories of early childhood education programs; physical, emotional, social and cognitive development. Provides strategies for working with parents and evaluating programs. This course has a field component. Students should apply to Field Experiences Office of COE to be placed in a school. (F,S)

EEC 4204 Curriculum and Instruction in Early Childhood Education (3). Knowledge of curriculum and instructional skills in kindergarten and primary grades. This course has a field component. Students should apply to Field Experiences Office of COE to be placed in a school. (F,S)

EEC 4266 Curriculum Programs—Infancy (3). Comprehensive knowledge of curricula and educational programs for infants and toddlers. Prerequisites: EDG 3321, EDG 3321L. Corequisites: EEC 4940. (AR)

EEC 4267 Curriculum Programs-Preschooler (3). Comprehensive knowledge of curricula and educational programs for preschoolers. Prerequisites: EDG 3321, EDG 3321L. (AR)

EEC 4301 Trends in Early Childhood Education (3). Knowledge of critical issues; skill in assessing programs; application of child development principles to study of young children. Prerequisites: EDG 3321, EDG 3321L. (AR)

EEC 4524 Development and Administration of Early Childhood Programs (3). Knowledge and skills to prepare administrators of programs for young children. Prerequisite: Background in Early Childhood Education. (AR)

EEC 4704 The Education and Development of Young Children (3). Knowledge of infant, toddler and young child's physical, intellectual, social and emotional development and educational enhancement. Prerequisites: EDG 3321, EDG 3321L. Corequisites: EEC 4940. (AR)

EEC 4943 Student Teaching (9). Required of undergraduate early childhood majors as culmination of program. Provides experience in a prekindergarten, kindergarten or in the primary grades in an elementary school where student assumes all teaching responsibilities for a minimum of ten weeks. Corequisite: EDF 4634. Prerequisite: Successful completion of all program requirements. (F,S)

EED 4212 Behavioral Approaches to Learning and Classroom Management II (3). Advanced behavior management techniques to include application of theories, crisis intervention, legal issues, and counseling skills. Prerequisites: EEX 2010, 3202, SPA 3000, EEX 3221, EEX 4601. (F)

EED 4243 Strategies for Teaching Students with Emotional Handicaps (3). Instructional strategies and specialized approaches for teaching emotionally handicaps. Must be taken concurrently with EED 4244, EED 4212, and EEX 4810 as 'the senior block' and requires extensive field work. Prerequisite: All junior-level courses. Corequisites: EED 4212, EED 4244, EEX 4810. (F,S,SS)

EED 4244 Curriculum for Teaching Students with Emotional Handicaps (3). Concepts and skills using various curricular models designed for students with emotional handicaps. For program students, this course must be taken concurrently with EED 4244 and EED 4212 as the Senior Block. Prerequisites: All junior level courses. (F)

EEX 3012 Educational Needs of Students with Exceptionalities (3). Significant concepts in relation to the educational needs of students with exceptionalities. Field experience required.

EEX 3066 Instructional Practices in Exceptional Student Education I (3). This course includes the theoretical basis and principles of appropriate instructional practices and techniques for students with mild disabilities, IEP planning, and curriculum development. Prerequisites: EEX 3012, EEX 3221, SPA 3000, EDP 3218.

EEX 3071 Teaching Students with Exceptionalities in Inclusive Settings (3). This course focuses on the foundations of inclusive education, characteristics of students with disabilities, instructional strategies, and collaboration among educators and parents.

EEX 3202 Personal Foundations and Transitional Services for Individuals with Disabilities (3). Biological conditions affecting learning and their personal and social consequences including employability and transitional skills for adulthood. Field experience required.

EEX 3221 Assessment of Students with Exceptionalities (3). Basic assessment concepts and application to appropriate test selection, administration, scoring, and interpretation. Informal and formal techniques employed for purposes of gathering data for instructional

planning. Prerequisites: EEX 3012, EEX 3202. Lab fee required. (F,S,SS)

EEX 3231C Assessments of Infants and Young Children with Disabilities (3). This course will familiarize students to methods and instruments to assess infants and young children with disabilities. Students learn to use assessment data to plan interventions and instruction. Prerequisite: EDP 3501.

EEX 3243 Instructional and Assistive Technology in Special Education (3). Provides teachers of students with disabilities instructional and assistive technology skills that enhance student learning and increase access to the general education curriculum. Prerequisite: EEX 3012.

EEX 4050 Nature and Needs of Students with Mild Disabilities (3). History, etiology, characteristics, assessment and treatment of students with mild retardation, emotional handicaps and learning disabilities. Emphasis on theory, research and concepts related to curriculum, K-12. Prerequisites: EEX 3012, EEX 3202. (F,S,SS)

EEX 4067 Instructional Practices in Exceptional Student Education II (3). This course includes the principles of effective instructional practices and strategies for students with mild disabilities, and requires implementation of those strategies in the field. Prerequisites: EEX 3066, EEX 3012, EEX 3221, EDP 3218, SPA 3000. Corequisite: EEX 4810.

EEX 4070 Children with Exceptionalities in Inclusive Settings (3). Characteristics of students with mild disabilities and techniques of identifying, assessing, managing and instructing them in general education settings. (F)

EEX 4240 Literacy in Special Education (3). This course provides a theoretical and practical framework for understanding issues related to teaching, reading and language arts to students with exceptionalities. Prerequisites: SPA 3000, RED 4150, RED 4311.

EEX 4601 Behavioral Approaches to Learning and Classroom Management I (3). Introductory course in applied behavior analysis for those planning to teach students with exceptionalities. Provides concepts and skills necessary for application of operant conditioning principles. Prerequisites: EEX 3202, SPA 3000, EEX 3221. (S,SS)

EEX 4810 Practicum in Special Education (1). The practicum in Special Education provides opportunity for an intensive and integrated experience in the classroom under the close supervision of master teachers and university personnel. Corequisite: Senior status. (F)

EEX 4861 Student Teaching (9). A field experience for program majors in Special Education providing opportunities to demonstrate competencies learned throughout the program. Prerequisite: Completion of all program requirements. Full admission as a degree-seeking student in the undergraduate special education program. (S)

EEX 4905 Directed Study in Special Education (1-6). Concepts or competencies contracted between an undergraduate student and faculty member in accordance with the student's individual needs. (F,S,SS)

EEX 4936 Student Teaching Seminar in Special Education (3). Seminar required of students enrolled in the Bachelor's and Modified Master's programs in Special Education. The purpose is to support, encourage and guide students through the transition from 'learning how to teach' to independent teaching. Prerequisite: All program courses. Corequisites: EEX 4861 and EEX 6862. (F,S)

ELD 4230 Curriculum for Teaching Students with Learning Disabilities (3). Designed to familiarize students with the terminology, characteristics, curriculum models, specialized curriculum, and instructional materials for students with learning disabilities. Field experiences required. Must be taken concurrently with Senior Block with ELD 4240 and EED 4212. Prerequisites: All junior level courses. (F)

ELD 4240 Strategies for Teaching Students with Learning Disabilities (3). Instructional strategies and specialized approaches to teaching students with learning disabilities. For program students, the course must be taken concurrently with ELD 4230, EED 4212, and EEX4810 as the senior block, and requires extensive field work. Prerequisite: All junior level courses. (F,S)

EME 2040 Introduction to Educational Technology (3). Introduction to the use of educational technology. Examination of productivity tools, interactive multimedia, communications, educational software, instructional applications and ethical, legal, social, and professional issues.

EME 3402 Computers for Teachers (3). An introductory course focusing on instructional uses of computers in pre-college education. Designed to provide skills in using computers as a classroom tool. (F,S,SS)

EME 4103 Production and Use of Audio/Visual Media (3). Knowledge and skill in selecting and producing audio-visual media. Emphasis is placed on student production of audio and visual materials and equipment use. (AR)

EMR 4221 Curriculum for Teaching Students with Mental Retardation (3). Significant concepts and skills needed for educational planning, programming and placement decisions for students with mental retardation during school years. Field experiences required. Must be taken concurrently in Senior Block with EMR 4362 and EED 4212. Prerequisites: All junior level courses. (F)

EMR 4362 Strategies for Teaching Students with Mental Retardation (3). Familiarizes students with the instructional strategies and specialized approaches for teaching the mentally retarded. Must be taken concurrently with EMR 4221, EED 4212, and EEX 4810, as the Senior Block. Requires extensive field work. Prerequisite: All junior-level courses. (F,S,SS)

ESE 4322C Secondary Classroom Management (3). Provides students with the theoretical and practical approaches for dealing with the problems of classroom management within the goals, materials, and teaching strategies that form secondary classrooms.

EVT 3065 Foundations of Vocational Education (3). History of vocational legislation, principles and practices on the national, state, and local levels. (SS)

EVT 3161 Instructional Materials in Vocational Industrial Education (3). Evaluation of existing

instructional materials and the planning and development of individualized instructional materials. (S)

EVT 3165C Course Planning (3). Knowledge of work analysis, planning, and organizing of vocational content for instruction. (S)

EVT 3367 Testing and Measurements in Vocational Education Subjects (3). Knowledge and skill in developing cognitive, effective and performance standards, tests, and measurements in vocational laboratory settings. Prerequisite: EVT 3165. (SS)

EVT 3815C Vocational Education Laboratory Management and Safety (3). Knowledge and skill in analyzing, planning, organizing and controlling laboratory environments and students' safe learning activities. (F)

EVT 4164 Technical Applications in Occupational Areas (3). The incorporation of new technical knowledge and skills of an occupational area into existing vocational education courses of study. Prerequisite: EVT 4946. (F)

EVT 4280 Occupational Safety and Health (OSHA) (3). Knowledge of the history, implications, and applications of the Occupational Safety and Health Act of 1970. For vocational and technical teachers, industrial employees, and management personnel. (AR)

EVT 4310 Planning and Operating HOE Programs (3). An intermediate course that develops an understanding of health occupation education as well as skills and knowledge needed by health care professionals to plan and develop health occupations programs. Approved for "special methods of teaching health occupations education." Prerequisite: EVT 3165. (AR)

EVT 4311 Special Teaching Lab in HOE Programs (3). An intermediate course that develops knowledge of institutional structure, policies and roles of school personnel combined with field and actual teaching experiences. (AR)

EVT 4312 Instructional Strategies and Evaluation in HOE Programs (3). An intermediate course that focuses on the development of skills and knowledge needed to analyze, plan, develop, execute and evaluate classroom and laboratory teaching and learning activities in health occupations education. Approved for "special methods of teaching health occupations education." Prerequisite EVT 3165. (AR)

EVT 4351 Teaching Limited English Proficient Students in Vocational Education (3). Knowledge of the history, principles, and practices, as well as skill in analyzing, planning, developing, executing, and evaluating classroom and laboratory teaching and learning activities for limited English proficient students. Meets META requirement. (F)

EVT 4365 Instructional Strategies and Evaluation in Vocational and Technical Education (3). Knowledge and skill in analyzing, planning, developing, executing and evaluation classroom and laboratory teaching and learning activities. For non-degree certification only. (AR)

EVT 4502 Introduction to Vocational Special Needs Education (3). Knowledge of historical developments, legislation, instructional strategies, and program alternatives required to instruct special needs students in vocationally related environments. (S)

EVT 4668 Emerging Emphasis in Career Education (3). A knowledge of current trends and issues in reference to developing and integrating career education into current elementary and secondary educational programs. (AR)

EVT 4905 Directed Study in Vocational/Technical Education (1-3). Identification, research, and reporting on a special problem of interest to the student. Subject to approval of program advisor. (F,S,SS)

EVT 4920 Group Training and Development (3). Knowledge and skills necessary to design, prepare, conduct, and evaluate group training and development programs. Prerequisite: Permission of the instructor. (S, alt)

EVT 4931 Special Topics (1-4). Knowledge of recent developments related to problems, practices, programs, and methodologies in organizational setting. Prerequisite: Permission of the instructor. (AR)

EVT 4940 Professional Problems in Vocational and Technical Education (3). Knowledge of institutional structure, organization, policies, and roles of school personnel, with actual teaching experience in area of specialization. (S)

EVT 4941 Student Teaching: Vocational Industrial Education and Technical Education (9). Utilization of instructional knowledge, attitudes, and skills in a variety of instructional situations in the vocational educational setting. (F,S)

EVT 4942C Internship: Training and Development (3). Knowledge and skills in training and development in non-public school settings. Prerequisites: Admission to Organizational Training Certificate Program and permission of the instructor. (F,S,SS)

EVT 4946 Field Experience: Technical Updating (3). The identification and acquisition of current technical knowledge and skills in an occupational area. Prerequisite: Vocational certification. (F,S,SS)

EVT 4949 Occupational Experiences (3-9). Occupational skill developed via field based work-experience in industry, business, or a government agency in the occupation in which the student is preparing to teach. (F,S,SS)

EVT 4990C Credit by Examination (3-9). Technical knowledge and skills in an occupational area such as trade, industry, health and technology, as certified by recognized professional examinations such as the National Occupational Competency Test. Credits cannot be used in lieu of upper division professional program courses. (AR)

FAD 3253 Parenting (3). Overview of changing concepts of parenthood and childhood. Explores contemporary issues concerning parenting with emphasis on maximizing human potential of parents and children. Open to non-majors. Recommended prerequisite: DEP 2001. (AR)

FAD 4340 Family Development: Adulthood and Aging (3). Extension of the study of developmental patterns with emphasis on physical, intellectual, social, and emotional influences with particular emphasis on the family and/or family substitute. Graduate students will have additional requirements. (AR)

FLE 4151 Bilingual School Curriculum and Organization (3). Development of a theoretical understanding of the nature of bilingualism, a rationale for bilingual education, and a set of principles and skills for organizing, bilingual-bicultural curriculum experiences in the elementary school. Prerequisite: EDG 3321. (AR)

FLE 4314 Methods of Teaching Foreign Languages in the Elementary School (3). Development of instructional skills, techniques and strategies for teaching modern languages in the elementary school. (F)

FLE 4375 Methods of Teaching Modern Language at the Secondary Level (3). Development of instructional skills, techniques, and strategies for teaching modern languages in the junior and senior high school. Prerequisite: EDG 3321. Field experience required. Minimum prerequisite or corequisite of 14 hours in subject matter specialization. (F)

FLE 4871 Teaching Spanish to Speakers of Spanish (3). Development of understandings and teaching skills needed in presenting integrated non-official language arts programs which would consider factors of languages and cultures in contrast. Prerequisites: EDG 3321 and Spanish proficiency. (AR)

FLE 4872 Teaching Spanish as a Second Language (3). Development of instructional skills, techniques, and strategies for teaching Spanish to non-native speakers of Spanish in the elementary school. Prerequisites: EDG 3321 and Spanish proficiency. (AR)

FLE 4942 Student Teaching (9). Supervised teaching in a junior or senior high school. Prerequisites: EDG 3321, RED 4325, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program. (S)

HEE 3302 Curriculum Development in Vocational Home Economics (3). Development, adaptation, and evaluation of curriculum for vocational home economics content in a variety of educational settings. Subject to approval of the instructor. (F)

HEE 4104 Instruction in Vocational Home Economics (3). Application of educational principles, practices, and techniques to the teaching of vocational home economics in varied educational settings. Subject to approval of the instructor. (F)

HEE 4941 Student Teaching in Home Economics (9). Utilization of instructional knowledge, attitudes, and skills in vocational home economics instructional settings. Prerequisites: HEE 3302, HEE 4104, HEE 4944. (S)

HEE 4944 Special Teaching Laboratory: Home Economics (3). Acquisition of knowledge of educational institutions, and utilization of planning tools and teaching skills within areas of home economics in selected educational settings. Prerequisites: HEE 3302, HEE 4104. (S)

HHD 4420 Home Furnishings and Equipment (4). Principles involved in the construction, selection, operation, and care of furnishings and equipment and their relationship to their environmental use. (AR)

HLP 3722 Content and Methods of Teaching Elementary Health and Physical Education (3). Provide content and methods needed to understand and teach health and physical education to elementary students of diverse backgrounds. (F,S,SS)

HME 4230 Management of Personal and Family Resources (3). Application of management principles to personal and family decisions including human and non-human resources. Opportunity for community observation of management decisions made by persons of various ethnic groups and/or life styles and an analysis of the effect of these decisions on family relationships and personal success. (AR)

HSC 4406 Management of Medical Emergencies (2). Students will learn the basic principles of managing medical emergencies utilizing immediate first aid techniques. American Red Cross certification in adult CPR and first aid will be obtained.

LAE 3334 Classroom Management in the Middle/ Secondary English Classrooms (1). Designed to provide students with the theoretical and practical principles to deal with the problems of classroom management within the concept of goals, materials, and teaching strategies that form the English language arts. Prerequisites: EDG 3321, and LAE 4335. (F,S)

LAE 4335 Special Teaching Laboratory English (3). Development of instructional skills, techniques, and strategies for teaching English in the middle school and senior high school. Prerequisite: EDG 3321. Field experience required. Prerequisite of 21 hours required in English courses beyond lower division English prerequisites for this program. Requires 2-4 hours/week field work. (F)

LAE 4463 Multicultural Perspectives in Teaching Language and Literature for Young Adolescents (3). Designed to provide students with a theoretical and practical basis for teaching and reading multicultural literature in the secondary school. (SS)

LAE 4464 Experiencing Adolescent Literature in the Middle School and Senior High School (3). An examination of the most familiar types of literature found in the middle and secondary school English curriculum today; and the development of strategies for organizing and providing a variety of literary experiences of students who differ in intellectual abilities and literary tastes. (F,SS)

LAE 4851 Teaching English as a Second Language (3). Development of instructional skills, techniques, and strategies for teaching English as a second language in the elementary school. Prerequisites: EDG 3321 and English proficiency. (AR)

LAE 4942 Student Teaching (9). Supervised teaching in a middle school or senior high school. Prerequisites: EDG 3321, RED 4325, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program. (S)

LAE 4405 Children's Literature (3). Focuses on the exploration of children's literature and its role in early childhood classrooms. Current theories and methods about integrating literature into all curriculum areas from a developmentally appropriate practice perspective will be discussed. (F,SS)

LAE 4464 Multicultural Perspectives in Teaching Language in Literature for Young Adults (3). Designed to provide students with a theoretical and practical basis for teaching and reading multicultural literature in the secondary school. (F,S)

LBS 3001 Introduction to Labor Studies (3). History and development of the labor movement, with emphasis on union development as a response to industrialization and technological change. Includes the structure and functioning of modern unions, the development of modern technology, the industrial working class, and the impact of the rural-urban shift of labor.

LBS 3470 Labor Contract Administration (3). Use of grievance procedure to administer a collective bargaining agreement. Identification, research, presentation and writing of grievance cases. Technical and legal role of union steward.

LBS 3943 Internship in Labor Studies (3). Practical training and experience in various aspects of labor organization policies, practices, and procedures through placement with a local labor organization. Reports and papers required. Prerequisite: Permission of the instructor.

LBS 3949 Cooperative Education in Labor Studies (1-3). One or two semesters of part or full-time work related to the major. Written reports and supervisor evaluations required. Prerequisite: Permission of Labor Studies Program.

LBS 4101 Theories of the Labor Movement (3). This course deals with theories which have attempted to explain the origins, developments, and functioning of the labor movement.

LBS 4150 Contemporary Labor Issues (3). Studies of contemporary labor issues selected from such areas as collective bargaining, arbitration, mediation, legislation, regulative and administrative law, employment discrimination, and union grievances.

LBS 4154 Workers and Diversity (3). The theoretical debates surrounding the workforce participation of women and minorities as well as the historical position of these groups in the labor force are studied. Students explore social phenomena that contribute to the continuation of discriminatory practices and study and analyze the policies that attempt to address these issues.

LBS 4210 Women and Work in the United States (3). The role of women in the work force and in unions with historical, social, and economic emphasis.

LBS 4260 Union Leadership and Administration (3). Administration of labor organizations; labor policies and practices; legal requirements and financial administration of unions.

LBS 4401 Labor Contract Negotiations (3). A comprehensive study of collective bargaining with emphasis upon the private sector. Included will be negotiations and scope of contracts, day-to-day contract administration, and major bargaining issues.

LBS 4461 Labor Dispute Resolution (3). Theory and practice of dispute resolution in industry arbitration processes, grievances, mediation, fact-finding, and conciliation. Arbitration of industrial claims and disputes, commercial arbitration.

LBS 4484 Classroom Conflict Resolution (3). Investigate conflict and violence, and help students to develop strategies to defuse them in the classroom.

LBS 4501 Labor Law (3). Studies the history and current functioning of labor law with special emphasis upon the private sector.

LBS 4610 Cross Cultural Dimensions of Latin American Labor Relations (3). A survey of the issues, techniques, and professional competencies required to effectively understand and contribute to furthering fluid and productive labor management relationships in the hemisphere.

LBS 4653 Labor Movements in Developing Countries (3). The role that unions play in developing or recently developed countries; the relationship between economic development strategies and union structure/strategy; role of unions in representing popular social sectors; special emphasis on Latin American and Asian labor movements.

LBS 4654 Comparative and International Labor Studies (3). A study of labor issues from a comparative and international perspective with emphasis upon the impact of international organizations on labor relations systems and a comparison among major labor relations models.

LBS 4900 Directed Study in Labor Studies (3). Supervised reading and/or field research and training. Prerequisite: Permission of the instructor.

LBS 4905/4930 Topics in Labor Studies (1-3). Selected topics or themes in Labor Studies. The themes will vary from semester to semester. With a change in content, course may be repeated.

LBS 4949 Cooperative Education in Labor Studies (1-3). One or two semesters of part or full-time work related to the major. Written reports and supervisor evaluations required. Prerequisite: Permission of Labor Studies Program.

LEI 2162 Leisure in Your Life (3). Examines the significance of leisure in contemporary life. Topics include work-leisure relationships, the benefits and costs of leisure, and leisure's role in promoting human growth and development.

LEI 3001 Leisure and Recreation in America (3). An introduction to the fundamental concepts of leisure and recreation and their roles in American culture. The class will be structured around a lecture-discussion format. (F)

LEI 3165C Taboo Leisure Habits in American Society (3). Course explores leisure past times that are forbidden by law, custom, or belief. Students will examine the negative aspects of leisure. Ex. Substance abuse, harmful sex, gambling and gang activity.

LEI 3402 Program Development in Recreation & Sports (3). Development of objectives, planning, implementation and administration of recreation and sport programs. (S)

LEI 3524 Human Resource Management in Parks and Recreation (3). After a study of human interaction in a

management setting, students will demonstrate competencies necessary for hiring staff, conducting group dynamics and communicating to the public. (AR)

LEI 3542 Principles of Parks, Recreation and Sport Management (3). An exploration of the field of recreation, parks and sport, including career areas, management responsibilities and supervisory levels and principles and theory. (F)

LEI 3624 Turf Grass Management (3). A practical approach to the care and maintenance of special grasses such as those found on golf courses and other recreational facilities. (AR)

LEI 3630 Care, Maintenance and Design (3). A study of procedures for maintaining outdoor facilities. Students will be expected to display competence in proper maintenance of areas normally found in parks and recreation centers. (F)

LEI 3703 Introduction to Therapeutic Recreation (3). History, philosophy and current principles of therapeutic recreation processes and application. Emphasis will be given to role of therapeutic recreation services. (F)

LEI 3707 Inclusive Recreation Services (3). Course is designed to provide Parks and Recreation Management majors with opportunities to enhance knowledge of the characteristics and leisure needs of individuals with disabilities and knowledge of accessibilities issues.

LEI 3724 Therapeutic Recreation and Facilities Techniques (3). Designed to provide "hands on" experience, as well as in-depth examination of medical aspects of disabling conditions in activity interventions for individuals with physical disabilities in a diversity of activity interventions. Prerequisite: LEI 3703. (F)

LEI 3800 Liability and Law in Leisure, Recreation and Sports (3). Legal issues related to leisure service management including legal foundations, legal liability, land use policy, employment regulations, handicapped services, and current issues. (S)

LEI 3860C Computer Applications for Recreation and Sport Management (3). Introduction to computer applications useful in Recreation and Sport Management. Includes standard office, internet, and specialized recreation and sport management software.

LEI 4268C Adventure Education (3). Teaches the philosophy, history, application of adventure education; features high and low ropes activities, problem solving, leadership, team-building development, adventure-based curriculum and resources.

LEI 4438 Recreational Sports Programming (3). Principles and practices in recreational sports programming for universities and institutions including intramurals, recreation facilities, budgets, rules, tournaments, liability, and special programs.

LEI 4543 Recreation and Sports Facility Management (3). This course is designed to provide the student with an overview of the concepts and practices involved in managing recreation and sports facilities.

LEI 4560 Leisure Services Marketing (3). Application of service marketing principles and practices to both the public and private leisure service industry to improve both effectiveness and efficiency of operations. (S)

LEI 4590 Seminar in Parks and Recreation Sport Management (3). A discussion of current problems, issues and trends in parks, and sport recreation management, which will help the student develop those competencies necessary to deal with everyday aspects of particular programs. (F)

LEI 4705 Programming for Therapeutic Recreaction (3). Principles and practices in planning and implementing programs in therapeutic recreation settings. Special emphasis will be placed on a systematic approach through problem-solving techniques. (S)

LEI 4711 Client Assessment, Evaluation and Documentation in Therapeutic Recreation (3). An overview of the theory, concepts and techniques used in client assessment, evaluation and documentation for therapeutic recreation treatment. (S)

LEI 4720 Problems, Issues & Concepts in Therapeutic Recreation (3). An examination of current issues, trends and professionalization concerns in therapeutic recreation. (F)

LEI 4813 Leisure Education and Facilitation Techniques (3). A focused survey of leisure education and counseling as applied in therapeutic recreation delivery systems. (F)

LEI 4842 Private and Commercial Recreation & Sports Management (3). Identification, development, operation and impact of profit-oriented recreation and sport-related enterprises. (AR)

LEI 4931 Special Topics: Leisure Service Management (1-3). Analyzes and utilizes recent developments related to problems, practices, contemporary issues, practices and methodologies in Leisure Service Management. Permission of the instructor. (S,F)

LEI 4940 Internship I (9). An on-the-job training program designed to enable students to develop those competencies which can only be gained from practical experience. (SS,AR)

LEI 4941 Internship II (9). Advanced undergraduate supervised internship in a parks and recreation or recreational therapy organizations. Prerequisites: LEI 4940 and permission of the instructor. (SS,AR)

MAE 3651 Learning Mathematics with Technology (3). Use innovative software and graphing calculators for students to experience learning mathematics with technology. Revisit topics of school mathematics with a problem solving approach. Corequisite: Calculus I. (F,S)

MAE 4310 Content and Methods of Teaching Elementary Mathematics (3). Provides content and methods needed to understand and teach all five areas of mathematics to elementary students of diverse backgrounds. Prerequisites: Three courses at college algebra and above. (F,S,SS)

MAE 4320 Special Teaching Lab: Middle School Mathematics (3). This course is required in the baccalaureate program for those who plan to teach middle school mathematics. It provides the knowledge and skills for functioning in a mathematics classroom. Prerequisites:

Senior standing, MAE 3651, MAC 3311, STA 3163, MAS 3105.

MAE 4333C Special Teaching Laboratory: Mathematics (4). Development of instructional skills, techniques, and strategies for teaching mathematics in the middle school and senior high school. Prerequisites: EDG 3321. Field experience required. Minimum prerequisites or corequisites of 24 hours in subject matter specialization, including COP 2210, MAS 3105, MAS 4213, MTG 3212, STA 3164, and approved electives; permission of the instructor required. (F)

MAE 4942 Student Teaching (9). Supervised teaching in a middle school or senior high school. Prerequisites: EDG 3321, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program. (S)

MUE 3210 Content and Methods of Teaching Elementary Music (3). Provides content and methods of teaching elementary music as a mode of communication and creative expression to elementary students of diverse backgrounds. (F,S,SS)

MUE 3340 Elementary School Teaching Methods (3). Development of instructional skills, techniques, and strategies for elementary school classroom music for the music teacher. Laboratory and field work required. (S)

MUE 4094 Middle & Secondary School Vocal & Instrumental (3). Development of instructional skills and rehearsal technique, skills and strategies for teaching music in the middle school or senior high school. Labortory and field work required. (F)

MUE 4940 Student Teaching in Music Education (9). Supervised teaching in an elementary and secondary school. Prerequisite: Admission to the program. (S)

Students may only take three activity courses per semester and must check with an advisor to verify if courses will count toward graduation.

PEL 1421 Team Handball (1). Students will learn basic skills and teaching strategies involved in the sport of team handball. This course requires students to be physically active.

PEL 1441 Skills and Practice: Racquetball and Tennis (2). Designed to develop skills and knowledge of racquetball and tennis. Emphasis is on teaching methods of these physical activities. This course is a requirement for Physical Education majors and is open to non-majors. (S)

PEL 2321 Skills and Practice: Volleyball (2). Designed to develop skills and knowledge of volleyball. Emphasis is on volleyball teaching methods. This course is a requirement for Physical Education majors and is open to non-majors. (SS)

PEM 1104 Conditioning for Recreational Sports (1). Sports aerobics and other workout methods will be practiced to improve strength, flexibility, muscular endurance and skill level in various recreational sports. Sports participation will follow the training. Verify graduation with advisor. (F,S,SS)

PEM 1141 Aerobic Fitness (1). Provides students with the skills and knowledge necessary to achieve and maintain a desirable state of aerobic fitness. Verify graduation with advisor. (F,S,SS)

PEM 1404 Aikido (1). The study of the art of Aikido and redirecting forces to achieve their neutralization. An application of similar principles for self-defense.

PEM 1405 Judo Self Defense (1). Students will be taught physical and mental techniques to defend themselves from personal attack. This course is repeatable. Verify graduation credit with advisor. (F,S)

PEM 1441 Karate (1). Basic techniques and advanced applications of karate techniques will be taught. The class goal will be certification in rank levels to qualified students, beginners to advanced. This course is repeatable. Verify graduation credit with advisor. (F,S)

PEM 2101 Foundations of Fitness (3). Concepts related to the evaluation, development, and maintenance of fitness, including principles of training, weight control and stress reduction. Verify graduation credit with advisor. (F,S,SS)

PEM 2131 Weight Training (1). Exercise using various strength training equipment to improve muscular endurance, strength, and flexibility. Verify graduation credit with advisor. (F,S,SS)

PEM 3433C Competitive Olympic Judo 1 (3). This course will enable a judo practitioner, yellow/orange belt to obtain the necessary skills and strategies to compete in a local and state level competition. Prerequisite: PEM 1405 (3 credits). Corequisite: PET 3148 Introduction to Martial Arts.

PEM 3434C Competitive Olympic Judo 2 (3). This course will enable a judo practitioner green/blue belt to obtain the necessary skills and strategies to compete in a state and regional level competition. Prerequisites: PEM 3433C Competitive Judo 1 and PET 3148 Intro to Martial Arts. Corequisite: PET 4214 Sports Psychology.

PEM 4103 Advanced Personal Training (3). This class is designed to prepare students for the National Strength Professionals Associations Certified Conditioning Specialist Examination. Prerequisites: PET 3351 or its equivalent.

PEM 4401 Comprehensive Analysis of Japanese Martial Arts (3). An in-depth study of the evolution within the ideology and technology of the Japanese Martial Arts in the context of its origins, styles, organizations, and founders to its present role in society. Prerequisites: PET 3148. Corequisite: PEM 1XXX.

PEN 2132 Scuba Diving Lab (1). The lab enables divers to acquire and refine the skills needed to increase scuba proficiency. This lab is required for students taking Basic, Advanced, Rescue, or Leadership Scuba Diving. Repeatable. Verify graduation credit with advisor. Prerequisites: PEN 2136, PEN 3137, PEN 3138, or PEN 4135.

PEN 2136 Basic Scuba Diving (2). This course provides students with basic scuba knowledge and skills including diving physiology, underwater skills, safety, preparation and equipment care. Lab required. Verify graduation credit with advisor. Corequisite: PEN 2132.

PEN 2137 Advanced Scuba Diving (3). An advanced course for students with Basic Scuba training and certification. Includes advanced dive safety, underwater navigation, search and rescue techniques, etc. Lab required. Verify graduation credit with advisor. Prerequisite: PEN 2136.

PEN 2138 Scuba Rescue Diving (3). Provides skill and knowledge to prevent and manage diving risks, problems and emergencies. Includes search and rescue, first aid, CPR, oxygen administration. Lab required. Verify graduation credit with advisor. Prerequisites: PEN 2137 or permission of the instructor. Corequisite: PEN 2136L.

PEN 4135 Scuba Diving Leadership (3). Prepares advanced divers for professional roles as divemaster and assistant instructor. Requires teaching, supervision and trip planning. Lab required. Verify graduation credit with advisor. Prerequisites: PEN 2137, PEN 3138.

PEO 3012 Officiating Basketball (3). Students will examine the philosophies, mechanics and rules necessary for officiating basketball, from youth to intercollegiate levels.

PEO 4004 Principles and Practices of Coaching (3). Prepares students to examine the organization, philosophies, and skills necessary for coaching sports in diverse educational environments. (SS)

PEO 4041 Games in the Elementary and Middle School (3). The study of the scope, structure, and sequence of games in Grades K-5. Emphasis on educational games and skill progressions for selected sports. Field experience required. (SS)

PEP 3205 Gymnastics in the Elementary and Middle School (3). The study of the scope, structure, and sequence of the gymnastics program in grades K-5. Emphasis on educational gymnastics and simple formal gymnastics. (S)

PEP 4102 Applied Concepts of Fitness and Health (3). Content and methods for teaching activity/theory classes in which the primary emphasis is the development of fitness. (S)

PEP 4111 Health/Fitness Instruction (3). Knowledge and skills to evaluate one's fitness level and to design exercise and health enhancement programs for healthy individuals. Prerequisite: PET 3351. (F)

PEP 4114 Exercise Prescription (3). Knowledge and skills necessary to prescribe and lead exercises for persons with medical limitations especially cardiovascular and related diseases. Prerequisites: PET 3351 and PET 4384. (S)

PEQ 2230 Beginning Sailing (1). Designed to develop skills and knowledege of sailing. Emphasis is on actual in water experiences and development of sailing as life time pursuit.

PEQ 2232 Advanced Sailing (1). Designed to further skills and knowledege of sailing. Emphasis is on actual in water experiences and development of sailing as life time pursuit.

PEQ 2250 Beginning Kayaking (1). Designed to develop skills and knowledge of kayaking. Emphasis is on actual in water experiences and development of kayaking as life time pursuit.

PEQ 3126 Adapted Aquatics (2). Develops competencies in adapted aquatic programs and services. May be used for adapted physical education endorsement. (AR)

PET 3020 Foundations of Physical Education (3). Examines the philosophical, historical, sociological and psychological foundations of physical education and sport. (Field experience required). (F)

PET 3148 Introduction to Martial Arts (3). This course provides an understanding of the differences-similarities of martial arts. The student will have an understanding of its country of origin and its cultural influences on modern society. Corerequisites: PEM 1405 and PEM 1XXX.

PET 3310 Kinesiology (3). Students study the anatomical and mechanical principles of movement and apply this knowledge in the analysis of physical education and athletic sport activities. (Includes laboratory class periods.) Prerequisites: ZOO 3731 or ZOO 3733 or PET 3325 or BSC 2085. (F,S,SS)

PET 3325C Anatomy for the Exercise and Sports Sciences (3). The human body will be studied using a body systems approach with emphasis on the organization and structure of the musculoskeletal, nervous, and cardiovascular systems. Corerequisite: PET 3325L. (F,SS)

PET 3325L Anatomy for the Exercise and Sports Sciences Lab (1). The structure of the human body will be studied using hands-on experiences in the small group setting using class assignments, figures, models and computer activities. Corequisite: PET 3325C. (F,SS)

PET 3351 Exercise Physiology (3). Immediate physiological responses to exercise and the long-term adaptations that occur as a result of training. (F,S,SS)

PET 3353 Physiology for the Exercise and Sports Sciences (3). The human body will be studied using a body systems approach with emphasis on the function of the musculoskeletal, nervous, and cardiovascular systems. Prerequisite: PET3325C. Corequisite: PET 3353L.

PET 3353L Physiology for the Exercise and Sports Sciences Lab (1). The function of the human body will be studied in a small group setting using class assignments, figures, models, and physiologic measurements. Prerequisites: PET 3325C and PET 3325L.

PET 3640 Adapted Physical Education (3). Knowledge of scientific factors and develop and implement physical education programs for special populations. Laboratory and Field Experience required. (SS)

PET 3730 Physical Education in the Middle School (3). The study of the scope, structure, and sequence of the middle school physical education curriculum. Emphasis on teaching strategies, and curriculum development. Field experience required. (S)

PET 4050 Motor Learning and Development (4). Examination of the developmental aspects of movement and the factors influencing the acquisition and performance of motor skills. (F)

PET 4148 Medical Documentation and Pharmacology (3). Students will learn the terminology, note writing, and documentation techniques used in athletic training. Students will learn basic principles of pharmaceutical intervention and implications of rehab.

PET 4207 Considerations in Youth Sports (3). This course investigates and evaluates youth sport programs within the community. The psychological, social and physical development of youth will be of central focus to this course.

PET 4214 Sport Psychology (3). Concepts related to the psychological aspects surrounding sport performance will be discussed. Required course in the Undergraduate Sport Management Track. Prerequisite: Upper division status. (S)

PET 4251 Sociology of Sport (3). Basic principles of the sociological bases of sport will be presented and discussed. Required course in the Undergraduate Sport Management track. (SS)

PET 4354 Advanced Exercise Physiology (3). Provides a detailed examination of the acute and chronic responses to exercise and training. Particular attention is given to responses at the systems and cellular level. Prerequisite: PET 3351.

PET 4384 Exercise Test Technology (3). Knowledge and skills required to conduct an ECG monitored graded exercise test. Prerequisite: PET 3351. (F)

PET 4389 Advanced Concepts in Strength and Conditioning (3). The course is designed to prepare students for the NSCA's Certified Strength and Conditioning Specialist examination.

PET 4401 Administration of Physical Education & Sport. (3). An analysis of the organizational and administrative aspects of interscholastic & intercollegiate physical education and sport programs. (F)

PET 4442 Physical Education in the Secondary School (3). Methods, philosophy, and curriculum for physical education in the urban, culturally diverse secondary school. Field experiences required in addition to class work. (F)

PET 4510 Evaluation in Physical Education (3). Develops student competencies in motor skill testing, grading, and analysis of written and psychomotor test scores necessary for successful teaching in physical education. (SS)

PET 4520 Introduction to Clinical Education in Athletic Training (1). Introduction to the basic principles of managing medical emergencies utilizing immediate first aid techniques. Corequisite: HSC 4406.

PET 4550 Evaluation in Exercise Physiology (3). Prepares students to utilize and select or construct appropriate instruments for the assessment of fitness. Prerequisite: PET 3351. (F)

PET 4554 Comprehensive Conditioning of Elite Athletes (3). The course prepares a student to develop a comprehensive conditioning program including metabolic, speed, flexibility, plyometric and resistance training. Current practices of strength and conditioning coaches will be examined. Prerequisite: PET 3351.

PET 4621 Senior Seminar in Athletic Training (3). A culmination of the nine required courses for NATA certification, with experiences in written simulation, written multiple choice, and practical examinations. Prerequisites: PET 4622, PET 4622L, PET 4623, PET 4623L, PET 4632, PET 4632L.

PET 4622 Athletic Injuries (3). Students will demonstrate knowledge of the proper care and prevention of athletic injuries through the application of acceptable training techniques. (F,S,SS)

PET 4622L Athletic Injuries Lab (1). The practical skill of athletic injury taping for prevention and management of athletic injuries. Corequisite: PET 4622. (F,S,SS)

PET 4623 Assessment of Athletic Injuries I – LE (3). Students will demonstrate knowledge of special tests used for the evaluation of athletic injuries to the lower extremity. Designed to prepare the student for certification through the National Athletic Trainers Association. Prerequisites: Anatomy and PET 4622. (F)

PET 4623L Assessment of Athletic Injuries Lab I - LE (1). A practical approach to the evaluation of athletic injuries to the lower extremity and spine. Prerequisite: PET 4622. Corequisite: PET 4623. (F)

PET 4624C Emergency Medicine for Athletic Trainers (3). A practical approach to the care and management of medical emergencies that may occur in the field of athletic training. Advanced first aid and CPR in emphasized. Prerequisites: PET 4622, PET 4623.

PET 4627 Medical Conditions in Athletic Training (3). Students will demonstrate knowledge of the medical conditions that can affect athletes, and learn about the proper techniques to recognize, care, and treat the athlete who had medical conditions. Prerequisites: PET 4622, PET 4622L, PET 4623, PET 4623L, PET 4633, PET 4633L, PET 4632, PET 4632L.

PET 4629 Athletic Training Symposium (3). Provides insight and knowledge about various medical specialities and practitioners in the field of sports medicine that are related to athletic training and the care of the injured or ill athlete. Prerequisites: PET 4622, PET 4623.

PET 4630 Therapeutic Modalities for the Injured Athlete (3). The theory behind the use of therapeutic modalities for the care and treatment of the injured athlete. Prerequisites: PET 4622, PET 4622L.

PET 4632 Therapeutic Exercise for the Injured Athlete (3). The theory behind the use of therapeutic exercise for the care and treatment of injured athletes. Prerequisite: PET 4622. Corequisite: PET 4632L. (F,S)

PET 4632L Therapeutic Exercise for the Injured Athlete Lab. (1). Practical, hands on experience in utilizing the proper technique and understanding the reason why the use of therapeutic exercises are used for the care and treatment of the injured athlete. Prerequisite: PET 4622. Corequisite: PET 4632. (F,S)

PET 4633 Assessment of Athletic Injuries II – Upper Extremity (3). Students will demonstrate knowledge of special tests used for the evaluation of athletic injuries to the upper extremity and spine. Designed to prepare the students for certification through the National Athletic

Trainers Association. Prerequisites: Anatomy and PET 4622. Corequisite: Assessment of Athletic Injuries Lab – UE.

PET 4633L Assessment of Athletic Injuries II – Upper Extremity Lab (1). A practical approach to the evaluation of athletic injuries. Prerequisite: PET 4622. Corequisite: Assessment of Athletic Injuries II – Upper Extremity (class).

PET 4639C Acute Care and Injury Prevention (4). Students will learn acute care of injuries; learn safety precautions and physical and environmental risk factors; and contraindications associated with participation in athletics/exercises.

PET 4642C Therapeutic Modalities (4). Introduction to basic principles of theory and application of various modalities encountered in athletic training practice and to apply the basic principles in the laboratory settings. Corequisite: PET 4672L.

PET 4643C Orthopedic Assessment I – Lower Extremity (4). Introduction to common types of orthopedic injuries and/or dysfunctions that occur to the lower extremity during physical activity and the techniques of injury prevention, recognition, and evaluation. Prerequisites: PET 3325C, HSC 4406, PET 4639C, PET 4148. Corequisite: PET 4672L.

PET 4644 Therapeutic Applications of Martial Arts (3). Provides an understanding of the therapeutic applications of Martial Arts for the enhancement of an individual's well-being and pro-social behavior. Prerequisites: PET 4711 Teaching Martial Arts, PET 3148 Introduction to Martial Arts, PEM 1405 Judo Self-Defense and PEM 1404 Aikido.

PET 4660 Administrative Concerns in Athletic Training (3). The student will gain insight into the planning, management, and maintenance of an athletic training facility, including paperwork, budgeting, and liability concerns. (F)

PET 4672L Clinical Education I (3). Designed to allow students to apply athletic training techniques associated with management of medical emergencies, acute care and injury prevention, and medical documentation and pharmacology. Prerequisites: HSC 4406, PET 4639C, PET 4148.

PET 4691 Exercise Testing and Prescription of Special Populations (3). The course prepares a student to test and prescribe exercise programs for selected populations groups. Prerequisite: PET 3351.

PET 4711 Teaching Martial Arts (3). Students will develop skills in classroom management, teaching methods, applying specific knowledge of martial arts, conducting tournaments and seminars for the K-12 age group. Prerequisites: PET 3148 or PET 4644. Corequisites: PEM 1405 or PEM 1XXX.

PET 4929 Senior Seminar in Physical Education (3). Required of undergraduate physical education majors in the K-12 programs while student teaching. Provides discussion of current issues and topics related to teaching physical education. Prerequisite: Successful completion of all program requirements. Corequisites: PET 4945 or PET 4944 or PET 4943. (F,S)

PET 4940 Internship in Exercise Physiology: Undergraduate (3). Supervised clinical experience designed to offer the student experience in graded exercise testing and exercise leadership. Prerequisites: PET 3351 and PET 4384, or PEP 4111 or PET 4389. (F,S,SS)

PET 4943 Student Teaching Grades K-12 (9). Supervised teaching in an elementary and high school. Nine weeks of the student teaching experience will be in area of concentration.

PET 4944 Student Teaching: Grades K-8 (9). Supervised teaching in an elementary school. Corequisite: PET 4929. (F,S)

PET 4945 Student Teaching: Grades 6-12 (9) Supervised teaching in a middle or secondary school. Corequisite: PET 4929. (F,S)

PET 4946 Sports Management Internship (3-9). Supervised field experience in an approved sport or recreational setting. Prerequisites: Completion of required program and elective courses. (F,S,SS)

RED 3313 Language and Literacy Development (3). Introduces linguistic elements of English, language development, emergent literacy, and their impact on L1 and L2 students. Part of Block I.

RED 4100 Emergent Literacy (3). Focuses on young children's process of constructing meaning through literacy from a variety of disciplinary perspectives (Psychology, Linguistics, Education) and analyzes the significant implications for classroom practices. Prerequisite: RED 3313 (Language and Literacy). This course has a field component. Students should apply to Field Experiences Office of COE to be placed in a school. (F,S)

RED 4110 Content and Methods of Teaching Literacy in Schools (3). Provides content and methods needed to understand and teach a quality literacy program that meets the needs of all children. Prerequisites: RED 3313, RED 4150, RED 4311. (F,S,SS)

RED 4150 Content and Methods of Teaching Beginning Literacy (3). Provides content and methods needed to understand and teach beginning literacy to elementary students of diverse backgrounds and abilities. Prerequisites: RED 3313 or SPA 3000. (F,S,SS)

RED 4311 Content and Methods of Teaching Intermediate Literacy (3). Provides content and methods needed to understand and teach transitional literacy to elementary students of diverse backgrounds and abilities. Prerequisites: RED 3313 or SPA 3000, RED 4150. (F,S,SS)

RED 4325 Subject Area Reading (3). Skills, techniques and strategies for reading in content areas. Prerequisites: EDG 3321 and EDG 3321L. (F,S,SS)

SCE 4310 Content and Methods of Teaching Elementary Science (3). Provides content and methods needed to understand and teach science and technology to elementary students of diverse backgrounds. Prerequisite: Three lower-division science courses, one with a lab. Lab fee required. (F,S,SS)

SCE 4330 Secondary Science Teaching Methods (3). Development of instructional skills, techniques and

strategies for teaching biological and physical sciences in senior high schools. Prerequisite: EDG 3321. Field experience required. Minimum prerequisite or corequisite of 16-20 hours in subject matter specialization. (F,SS)

SCE 4944 Student Teaching (9). Supervised teaching in a middle school or senior high school. Prerequisites: EDG 3321, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization. (F,S)

SPA 2612 American Sign Language for Teachers I (4). Introductory training in basic ASL signs and historical and cultural information about the "deaf culture" for teachers. Two hrs/wk of lab required. (AR)

SPA 2613 American Sign Language for Teachers II (4). Intermediate training in ASL signs and additional information about "deaf culture" for teachers. Two hrs/wk of lab required. Prerequisite: SPA 2612. (AR)

SPA 3000 Acquisition of Speech and Language Skills. (3). Knowledge of normal acquisition of speech, language, and literacy. Includes overview of major speech/language delays and disorders, plus intervention strategies for teachers and parents.

SSE 4118 EEC Social Studies (3). Develops skills, understandings, and dispositions for teaching social studies to young children from diverse cultural backgrounds. This course has a field component. Students should apply to Field Experiences Office of COE to be placed in a school. (S,SS)

SSE 4304 Teaching Early Childhood Social Studies (3). Introduces preservice early childhood teachers to the changing nature of Social Studies within the early childhood curriculum. Prerequisite: Block 3.

SSE 4312 Content and Methods of Teaching Elementary Social Studies (3). Provides content and methods needed to understand and teach Social Studies from a global, multi-ethnic perspective to elementary students of diverse backgrounds. (F,S,SS)

SSE 4380 Developing a Global Perspective (3). Theory, content, and practice. Introduction and utilization of learning materials and teaching strategies in Global Education for K-12. (F,SS)

SSE 4384 Special Teaching Laboratory: Social Studies (3). Development of instructional skills, techniques, and strategies for teaching social studies in the middle school and senior high school. Prerequisite: EDG 3321. Field experience required. (F)

SSE 4942 Student Teaching (12). Supervised teaching in a middle school or senior high school. Prerequisites: EDG 3321, RED 4325, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program. (S)

TSL 3370 ESOL Principles and Practices I (3). Introduces issues, principles and practices of teaching English to speakers of other languages to develop the conceptual understandings that form the foundation of knowledge necessary to successfully meet the needs of linguistically and culturally diverse students. Prerequisite: Completion of block I. For all elementary, early childhood, special education, and English education majors.

TSL 4140 Curriculum and Materials Development in ESOL (3). Applications of ESOL theories, principles, and current research in the development of curriculum and materials; required for area of concentration in TESOL and for the Florida Add-on ESOL Endorsement. (S)

TSL 4141 ESOL Issues: Principles and Practices II (3). Provides understandings, skills, and disposition needed to select, evaluate, and apply TESOL strategies in elementary classrooms. Part of Block IV. Prerequisites: Block I, II, III. For all elementary, early childhood, special education, and English education majors.

TSL 4324 ESOL Issues and Strategies for Content Area Teachers (3). Analysis, application and adaptation of ESOL methods and materials to enhance instruction for linguistically and culturally diverse students. Fulfills META requirements.

TSL 4340 ESOL Methods for Grades K-12 (3). Development of instructional skills, techniques and strategies for teaching English to non-native speakers in grades K-12; required for area of concentration in TESOL and for the Florida Add-on ESOL Endorsement. (F,S)

TSL 4441 Testing and Evaluation in ESOL (3). Develops the knowledge necessary to select, adapt and design assessment instructions and testing techniques appropriate for language minority students in the ESOL classroom. Prerequisite: TSL 4340.

College of Education

Dean **Luis Mirón**
Associate Dean Academic Affairs **Adriana McEachern**
Associate Dean Enrollment Management and Marketing **Robert M. Wolff**
Associate Dean Budget and Administration **Carmen Mendez**
Chair, Curriculum and Instruction **Lisbeth Dixon-Krauss**
Chair, Educational Leadership and Policy Studies **Delia Garcia**
Chair, Educational and Psychological Studies **Leonard Bliss**
Chair, Health, Physical Education, and Recreation **Robert M. Wolff**
Coordinator, Doctoral Programs **Frank DiVesta**
Executive Director, Center for Urban Education & Innovation **Lisa Delpit**
Director, Academic Administration **Marta M. Medina**
Director, Advising Center **Marta Vazquez-Syms**
Director, Center for Labor Research and Studies **Dawn Addy**
Director, Field Experiences **Judith Cohen**
Director (Acting), Intercultural Institute for Education Initiatives **Hilary Landorf**
Director, Office of Technology **Douglas H. Smith**

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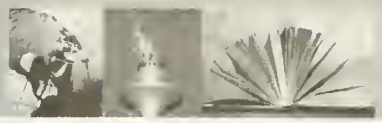
Wolff, Robert M., Ph.D. *(Ohio State University), Associate Professor, Parks and Recreation, and Sport Management, Health, Physical Education and Recreation and Associate Dean, Enrollment Management and Marketing*

Professor Emeritus

Fain, Stephen M., Ed.D. *(Teachers College, Columbia University), Professor, Curriculum and Instruction, Educational Leadership and Policy Studies*

Gavilan, Marisal, Ed.D. *(University of Tennessee), Associate Professor, Educational Psychology and Bilingual Education/TESOL, Educational and Psychological Studies*

Slater, Judith J., Ed.D. *(University of Florida), Associate Professor, Curriculum and Instruction, Educational Leadership and Policy Studies*



FLORIDA INTERNATIONAL UNIVERSITY

COLLEGE OF

engineering and computing

College of Engineering and Computing

Executive Dean and Distinguished Professor **Vish Prasad**
Dean, School of Computing and Information Sciences **Yi Deng**
Associate Dean for Academic Programs **L. David Shen**
Associate Dean for Outreach **Gustavo Roig**
Associate Dean, School of Computing and Information Sciences **Masoud Milani**

The College of Engineering and Computing is committed to educate professionals who can serve industry and the community at large in a wide variety of fields, as well as conduct innovative basic and applied research that meets the technical needs of industry and government, improves the quality of life, and contributes to the economic viability of Florida, the Nation, and the world.

The College of Engineering and Computing consists of one school, the School of Computing and Information Sciences and six academic departments: Biomedical Engineering, Civil and Environmental Engineering, Construction Management, Electrical and Computer Engineering, Industrial and Systems Engineering, and Mechanical and Materials Engineering. These academic departments offer programs leading to the Master of Science and Doctor of Philosophy degrees.

The College has two institutes and thirteen centers supporting its academic and research programs. The institutes are the Advanced Materials Engineering Research Institute (AMERI) and the Telecommunications and Information Technology Institute (IT2). The centers are the Bioinformatics Research Group (BioRG), Center for Advanced Distributed Systems Engineering, Center for Advanced Technology and Education (CATE), Center for Diversity in Engineering (CDE), Center for Emerging Technology for Advanced Information Processing and High-Confidence Systems, Center for the Study of Matter at Extreme Conditions (CeSMEC), Distributed Multimedia Information Systems Laboratory, Engineering Manufacturing Center (EMC), Eugenio Pino and Family Global Entrepreneurship Center, Future Aerospace Science and Technlogy Center (FAST), High Performance Database Research Center and the Lehman Center for Transportation Research (LCTR). Two major university centers, the Applied Research Center (ARC) and International Hurricane Research Center (IHRC) work very closely with the College of Engineering and Computing with many joint appointments at the faculty level.

The College has recently created an open-access Motorola Nanofabrication Research Facility to conduct research in nanoelectronics, bio/nanosensors and nanomaterials. In addition, the FIU College of Engineering and Computing has developed many collaborations with the industry and hospitals in Florida and across the nation.

Bachelor of Science degree programs in the College of Engineering and Computing are offered in the following fields of study:

Biomedical Engineering
Civil Engineering
Computer Engineering
Computer Science
Electrical Engineering
Environmental Engineering
Industrial and Systems Engineering
Information Technology (also B.A.)
Mechanical Engineering
Construction Management

Undergraduate Professional Certificates are available in:
Heating, Ventilation and Air Conditioning Design

The programs of the College are directed towards the practical use of scientific, engineering, and technical principles to meet the objectives of industry, business, government, and the public.

The College provides each student with the opportunity to develop a high level of technical skills and to obtain an education which will prepare him or her for a rewarding career and personal growth.

Underlying the programs of the College is a recognition that the growing impact of technology upon the quality of life is increasing and that the proper application of technology is critical to meeting current and emerging human needs.

The College faculty is actively engaged with business, industry and government. Faculty members also participate in a variety of basic and applied research projects in areas such as energy, transportation, solid waste disposal, biomedical devices and instrumentation, computer engineering, artificial intelligence, manufacturing, robotics, telecommunications, microelectronics, structural systems, biotechnology, sysems modeling, information technology, environmental sciences and engineering, image processing engineering education, etc. Undergraduate students are given the opportunity to participate in many of these research projects.

Educational Objectives for Computer Science

The computer science program is designed to give our students an outstanding education. To illustrate the excellence of our program, please note the educational objectives below that are met in our program.

1. To provide our graduates with a broad-based education that will form the basis for personal growth and life-long learning.
2. To provide our graduates with a quality technical education that will equip them for productive careers in the field of Computer Science.
3. To provide our graduates with the communication skills and social and ethical awareness requisite for the effective and responsible practice of their professions.
4. To prepare students for BS level careers or continued graduate education.
5. To maintain a diverse student population and actively promote an environment in which students from all groups, including the traditionally under-represented, may successfully pursue the study of Computer Science.
6. To maintain a qualified and dedicated faculty who actively pursue excellence in teaching.

Educational Objectives for Engineering

All engineering programs in the college are designed to give our students an outstanding education. To illustrate the excellence of our program, please note the educational objectives below that are met in every Engineering program.

1. Develop within our graduates a basic foundation in the fundamental areas of engineering and to provide the technical proficiency needed for the professional practice of engineering.

Our graduates will be able to:

A. Design a system, component, or process to meet desired needs related to the major technical areas encompassed by engineering.

B. Design and conduct experiments and analyze and interpret data related to at least two of the major technical areas encompassed in engineering.

C. Indentify, formulate, and solve a wide range of engineering problems.

D. Apply knowledge of mathematics, science and engineering to solve a wide range of engineering problems.

E. Utilize the techniques, skills, and modern scientific tools necessary for contemporary engineering practice.

2. Develop within our graduates the ability to communicate their ideas effectively within the technical community and to the general public.

Our graduates will demonstrate an acceptable level of proficiency in:

A. Written communication

B. Oral communication

C. Working with others as part of a multidisciplinary team.

3. Prepare our graduates to take their places in society as responsible citizens.

Our graduates will demonstrate an appreciation for and an understanding of:

A. Contemporary issues facing society as a whole.

B. The local and global historical, social, economic, and politcal context and impact of engineering solutions to societal problems.

4. Provide our graduates with the basis for, and instill within them an appreciation for enthusiasm for life-long scientific inquiry, learning and creativity.

Our graduates will:

A. Understand that graduation is but a beginning step in the development of professional engineering competency.

B. Appreciate the need for life-long learning to maintain and enhance the professional practice of engineering.

C. Be equipped with the basic knowledge and approach to learning that will allow them to benefit from continued scientific inquiry and learning.

5. Foster within our graduates the development of an understanding for the need to maintain the highest ethical standards in their personal and professional lives.

Our graduates will:

A. Demonstrate an understanding of professional integrity and ethical responsibilities.

B. Demonstrate an understanding of professional responsibility issues as they relate to public interest, health, and safety.

Educational Objectives for Construction Management

The construction management program is designed to give our students an outstanding education. To illustrate the excellence of our program, please note the educational objectives below that are met in our program.

1. To educate undergraduate construction management majors through a program of academic learning designed to provide the management and technical knowledge required for entry level professional positions in the construction industry

A. Have a good understanding of principles of management

B. Have knowledge of economics, accounting and business law

C. Have knowledge of building codes and standards

D. Have technical knowledge and ability to identify and understand civil, electrical, mechanical and structural systems

2. To furnish the graduate construction management majors an advanced level of education designed to provide the management and analytical knowledge required for managerial positions in the construction industry

A. Have ability to analyze construction problems

B. Have knowledge to solve construction problems

C. Have ability to plan, estimate and schedule construction projects

D. Have ability to manage construction projects and processes

3. Develop within our graduates the ability to communicate their ideas effectively within the technical community and to the general public.

Our graduates will have an acceptable level of proficiency in:

A. Written communication

B. Oral communication

C. Working with other in a project team

4. Foster within our graduates the development of an understanding for the need to maintain the highest ethical standards in their personal and professional lives.

Our graduates will:

A. Demonstrate an understanding of professional integrity and ethical responsibilities.

B. Demonstrate an understanding of professional responsibility issues as they relate to public interest, health, and safety.

Educational Objectives for Information Technology

1. To provide our graduates with a broad-based education that will form the basis for personal growth and life-long learning.

2. To provide our graduates with a quality technical education that will equip them for productive careers in the field of Information Technology.

3. To provide our graduates with the communication skills and social and ethical awareness requisite for the effective and responsible practice of their professions.

4. To maintain a diverse student population and actively promote an environment in which students from all groups, including the traditionally under-represented, may successfully pursue the study of Information Technology.

5. To maintain a qualified and dedicated faculty who actively pursue excellence in teaching.

Accreditation for Computer Science

The School of Computing and Information Sciences offers curricula leading to the degree of Bachelor of Science in Computer Science, Bachelor of Arts and Bachelor of Science in Information Technology. The Bachelor of

Science in Computer Science is accredited by the: Computing Accreditation Commission, ABET, Inc.

Accreditation for Engineering

The Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET) accredits engineering programs on a nationwide basis. Students wishing more information about accreditation should consult their respective departmental office or the Office of the Dean. The following baccalaureate engineering programs in the college are currently accredited by ABET, Inc.,: Biomedical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Industrial Engineering and Mechanical Engineering.

Accreditation for Construction Management

The American Council for Construction Education (ACCE) accredits construction management prorams on a nationwide basis. The baccalaurate construction management program in the College is accredited by the ACCE.

The subjects basic to all fields of engineering are generally studied while the student is in the first two years of undergraduate study in a pre-engineering curriculum. Specialized or departmental courses are taken in the third or fourth years with additional interspersed mathematics and humanistic-social studies. To earn a bachelor's degree in engineering, a student must complete the approved curriculum requirements, and must have a cumulative GPA of at least 2.0 on all engineering courses taken at the University.

The engineering programs include a strong engineering core foundation designed to prepare the prospective engineer not only with a broad base of fundamental courses in mathematics, sciences and technical knowledge, but also with a solid cultural background in humanities, social sciences and English. In addition to the core subjects, the student must complete an engineering discipline specialization under the direction of the respective academic department.

Admission Preparation

Prospective students who are considering engineering should follow an academic program to meet engineering prerequisites. The student planning to transfer to the engineering program as a junior should follow a pre-engineering program in the first two years of college work. Many courses required by the engineering curriculum are specialized in their content and students need to select lower division courses with care. The normal maximum number of credits transferred from a community college is 60 semester credits.

Freshman admission to the University is determined by the admission standards of the lower division. The admitted freshmen should discuss their future program intentions with their lower division academic advisor and plan their lower level course selections towards their engineering program goals. The freshman should have had high school preparation of considerable depth and breadth. Specifically, students admitted to the lower division interested in engineering should have preparation in mathematics (algebra, geometry, trigonometry, analytical geometry, or pre-calculus) and chemistry. Physics and introduction to computers are recommended, but not required. Admitted freshmen students planning to major in an engineering program should contact an advisor in their respective discipline as early as possible.

Engineering Admission Policy

The admission policy for freshmen and transfer students are different and the policies may vary in each department. (Refer to the Admission Policy in the department of your choice.)

FIU Freshmen

Students seeking admission to an undergraduate degree program will be admitted by the Admissions Office if the following criteria are met:

a. All general admission requirements of the University are satisfied.

b. In order to be admitted into upper division Engineering, a student must earn a grade of 'C' or higher in all Calculus courses, Differential Equations, Physics I with Calculus, Physics II with Calculus, and Chemistry I. Consult the department for details.

Transfer Students

All transfer students must meet the general University requirement for admission and must pass the CLAST. There is a two step process in the evaluation of transfer credits.

a. The Office of Admissions will make a preliminary evaluation of the student's background for general compliance and determination of applicable General Education courses taken.

b. The specific department will determine the exact transfer of applicable credit. The departmental evaluation is the final word in this matter.

c. FIU adheres to the Board of Education Articulation Agreement between the Universities and Community Colleges of the State of Florida. Therefore, transfer of credit from Florida Community Colleges is facilitated.

Preference is given to Associate of Arts degree holders from Florida Community Colleges. For holders of other degrees, it is suggested that application is made about three months prior to the beginning of the term.

For specific course requirements, see the departmental sections, shown later in the catalog.

College of Engineering and Computing Dismissal Policy

A student who has been dismissed from the University for the first time may see his/her advisor to begin the appeal procedure. The advisor will determine if the student is eligible to appeal the dismissal or if there is a way to lift the dismissal. If the student is eligible, he or she must make an appointment to see the chairperson or associate chairperson. The student must bring a letter stating when he or she was dismissed the first time and what he or she is going to do to ensure that he or she is not dismissed a second time. The student must also sign an agreement stating that he or she understands that the department will not allow a second reinstatement if the student is dismissed again. If the chairperson determines that the student is worthy of reinstatement, he or she will prepare and sign a memo for the Dean's consideration stating the conditions for the student to be reinstated (the student will be readmitted on academic, probation). If the student does not meet these conditions, he or she will be dismissed a second and final time from the program.

Any student who is dismissed a second time from FIU will not be readmitted under any circumstances. Institutional policy is that students may appeal to the Dean's Office, but only a first dismissal appeal is considered in the College of Engineering and Computing; a second dismissal appeal will not be accepted.

The College of Engineering and Computing will uphold the following institutional policies:

Academic Salvage

A student who is dismissed and subsequently receives an AA degree from another Florida public institution of higher learning can appeal to the department and may be readmitted to the program. The student's GPA will be recalculated.

Academic Amnesty

After 6 years of NOT taking courses at any College or University, an FIU undergraduate may reapply to the program. If readmitted, a student's FIU GPA will be set at 0.0. However, credit for previous University courses in which the student received a minimum grade of "C" may be applied toward the degree, (not the GPA), subject to determination by the department from which the student is attempting to earn the degree.

For more information or to find out if you are eligible, see your advisor.

Transfer of Courses to Engineering Programs

Courses from ABET-accredited universities will be transferred under the discretion of the engineering department. Course equivalencies will be determined solely by the department advisor, associate chairperson, or chairperson. Any other faculty member in the Department, College, or University cannot officially grant transfer credits under any circumstances.

Courses from non-ABET accredited programs (including foreign institutions) will only be accepted as long as all of the following requirements are met:

a) The College/University is recognized and accredited by the appropriate governing bodies (to be determined by our office of admissions)
b) For courses that are not offered directly from the student's Engineering department at FIU, a memo must be obtained by the student from the appropriate FIU department stating that the course is equivalent to the required course at FIU.
c) Any engineering course considered for transfer must be a 100% engineering science course at FIU. **If the course is partially or completely designated as an engineering design course at FIU, it cannot be transferred.** All transferred engineering courses must have the consent of the chairperson or associate chairperson of the student's department.
d) The student must earn the equivalent grade to what is required in the courses here at FIU (i.e., if a department requires a "C" in Physics, then the student must have a grade equivalent to a "C" at their university of origin).
e) **Technology credits and life experience credits will not be accepted as engineering credits under any circumstances.**

Academic Support Services

The area of academic support services is responsible for the coordination of academic advising and student services activities for the College of Engineering and Computing. This area is also responsible for keeping students informed on educational opportunities such as scholarships, tuition waivers, internships, Co-op studies and campus resources; serves as a liaison between the academic departments and the student support services university wide and facilitates the registration process in order to make sure that the students adhere to the college guidelines.

A student who has been accepted to a degree program in the College must obtain and consult an advisor prior to the first class enrollment. An advisor may be seen by contacting the Department in which an academic major is desired. Continued contact (at least once per semester) with the advisor is required to review progress and select courses for each succeeding semester. Such contact is required until an approved program of study is completed.

Cooperative Education

A Cooperative Education (Co-op) Program is conducted by the College in conjunction with the Department of Cooperative Education in the Division of Student Affairs. In this program, students spend alternate semesters in school full-time and fully employed in industry in a technical position directly related to their major. Students receive full pay for their work in industry.

Placement in Co-op positions is arranged by the Co-op Department and includes both local and national industrial, business and governmental agencies. Co-op students typically agree to spend at least three work periods in industry.

Applicants for the program are evaluated by the College and should contact the appropriate chairperson. Based on three work periods, students should enter the program during the first semester of the junior year. Inquiries from lower-division students, prior to transfer to the University are encouraged since work may be arranged immediately upon enrollment. The Co-op program also offers the Parallel Co-op whereby a student might alternate work and study during the same semester by attending the University part-time and working part-time in industry.

In addition to the university wide scholarships the College of Engineering and Computing offers scholarships as listed below: Most are restricted to students who are United States citizens or permanent residents.

Apply for these scholarships on our website www.eng.fiu.edu/html2002/index.htm.

Biomedical Engineering Excellence Scholarship – Biomedical Engineer – Merit-based scholarship is now available for FIU Undergraduates as well as transfer students with at least 60 credit hours. There are several $5,000 scholarships for an allocation of $1,250 over a period of four semesters. 3.0 GPA is required for eligibility and retaining of the award, while student's SAT score and a written statement will also be considered for the award. Before receiving the scholarship, students must declare Biomedical Engineering as their major. For more information, please call (305) 348-6950

Kimley Horn and Associates Inc. Scholarship Civil Engineer: Senior undergraduate or Graduate Civil Engineering students. Member of a recognized minority group, Award: $500 per academic year. Scholarship

applications are available at the College of Engineering website (www.eng.fiu.edu).

Leonard Kauffman Endowed Scholarship: Undergraduate junior or senior Industrial and Systems Engineering. This is a one time award of $500. There are two awards per academic year. Scholarship applications are available at the College of Engineering website (www.eng.fiu.edu).

HNTB Scholarship in Civil Engineering-Civil Engineering: Undergraduate or Graduate Civil Engineering students. Award: $500 per academic year. Scholarship applications are available at the College of Engineering website (www.eng.fiu.edu).

Sergio Martinez Endowed Scholarship: Undergraduate junior or first semester senior Industrial and Systems Engineering. This is a one time award of $500. There is one award per academic year. Scholarship applications are available at the College of Engineering website (www.eng.fiu.edu).

Randall L. Nida Memorial/Cordis Corporation Scholarship – Industrial and Systems Engineering: Undergraduate student in Industrial and Systems Engineering, U.S. Citizen, Award: $1,000 per academic year.

CSEMS Scholarship – Industrial and Systems Engineering: Eligibility requirements: U.S. citizen, permanent resident, or refugee at time of application. Be admitted to FIU or have submitted application for admission (in any program offered by the Department of Industrial & Systems Engineering). Attend FIU full-time (12 credits/semester undergraduate, 9 credits/semester graduate). Financial need for undergraduate students by submitted FAFSA. For graduate students by providing most recent tax return.

Association of Professional Estimators Bruce Morris Undergraduate Scholarship - Construction Management - A $1000 scholarship is awarded annually to a student enrolled in the Construction Management program who is considering pursuing a career in South Florida. Scholarship applications are available at the CM Department Website (www.cm.fiu.edu).

Catalfumo Construction Undergraduate Scholarship-Construction Management – Three scholarships of $4,000 each are awarded to students enrolled in the Construction Management program who are considering pursuing their careers in South Florida. Scholarship applications are available at the CM Department Website (www.cm.fiu.edu).

Catalfumo Construction Graduate Fellowship - Construction Management – An $18,000 graduate fellowship is awarded each year to a graduate student enrolled in the Construction Management program who is considering pursuing a career in South Florida. Scholarship applications are available at the CM Department Website (www.cm.fiu.edu).

Centex Construction Undergraduate Scholarship-Construction Management -A $1000 scholarship is awarded annually to a student enrolled in the Construction Management program who is considering pursuing a career in South Florida. Scholarship applications are available at the CM Department Website (www.cm.fiu.edu).

Consul Tech Scholarship in Civil Engineering-Civil Engineer- Undergraduate or Graduate Civil Engineering students. Award: $1000 per academic year. Scholarship applications are available at the College of Engineering wewbsite (www.eng.fiu.edu). 3.00 GPA. A Summer internship will also be awarded to scholarship recipient.

COSCAN Scholarship- Construction Mangment Two $1000 scholarships are awarded annually to students enrolled in the Construction Management program who are considering pursuing their careers in South Florida. 2.5 GPA .Scholarship applications are available at the CM Department Website (www.cm.fiu.edu).

Marlin Engineering Scholarship in Civil Engineering-Civil Engineer- Two $1500 scholarships are awarded to undergradute students enriolled in the Civil Engineering program each year. Scholarship applications are available at the College of Engineering website (www.eng.fiu.edu).

American Bankers Insurance Group Inc. Scholarship – Industiral and Systems Engineering: $1,000 per academic year. Full-time undergraduate student in Industrial and Systems Engineering, Junior year standing at time of award, U.S. citizen or permanent resident, Minimum of 3.0 GPA, Internship may be offered as part of award.

Construction Association of South Florida Scholarship: Scholarships are awarded annually to students enrolled in construction schools throughout the country who are considering pursuing their careers in South Florida. Selections are conducted by the Scholarship committee on behalf of the membership and board of directors. Scholarship applications are available at the CM Department Website (www.cm.fiu.edu).

Condotte-American/MDX: Requirements are a CM major, financial need, leadership, etc. Applications available at CM Department. Applications normally due by mid April, award of scholarship for next academic year made in July. Amount of scholarship is currently $1,500 for one academic year, and not automatically renewable. Scholarship applications are available at the CM Department Website (www.cm.fiu.edu).

Southern Gear Scholarship – Mechanical or Industrial Engineer: Up to $1,000 per academic year / unmet need U.S. Citizens or Permanent Residents. Resident of Miami Dade County All levels. Minimum 3.0 GPA. Scholarship applications are available at the College of Engineering website.

Turner Construction Undergraduate Scholarship-Construction Management-a $5,000 scholarship Is awarded each year annually to a student enrolled in the Construction Management program.. Scholarship applications are available at the CM Department Website (www.cm.fiu.edu).

Turner Construction Graduate Scholarship-Construction Management-a $5,000 graduate scholrship Is awarded each year annually to a graduate student enrolled in the Construction Management program.. Scholarship applications are available at the CM Department Website (www.cm.fiu.edu).

Please note that in most cases, neither the college nor the department administer the scholarship funds listed below nor do they select the recipients. Additionally we need the contact info for these scholarship opportunities/applications.

Building Officials & Inspectors: Requirements are a CM major, financial need, leadership, etc. Applications are available at CM Department. Applications due by

September 15, 2005. Amount of scholarship is $1,000, not automatically renewable.

Associated General Contractors of America Scholarship: Requirements are for a full time student. Applications are available online or from the Department. Applications are available in July and must normally be submitted by November 01. Award amounts are $2,000 annually for undergraduate students, renewable up to $8,000 total, and $7,500 annually for graduate students. Graduate student scholarship is not renewable.

ASHRAE Scholarships – Mechanical Engineering: Scholarships are available to undergraduate engineering, engineering technology and graduate students enrolled full-time in a curriculum approved by the Accreditation Board for Engineering and Technology (ABET) or other accrediting agency recognized by ASHRAE.

SAE Scholarships – Mechanical Engineering: Money is available for both undergraduate and graduate engineering students through generous contributions from various corporations and universitites. These scholarships are funded through the SAE Foundation.

ASME Scholarship – Mechanical Engineering: Through the efforts of the ASME Board of Governors, ASME Foundation, the ASME Auxiliary, ASME Councils on Education, Engineering and Member Affairs, over $500,000 is awarded annually in low-interest student loans, scholarships and fellowships.

Astronaut Scholarship – Mechnical Engineering: Scholarship candidates must be nominated by faculty or staff, and they must be a junior, senior, or graduate student at one of a select group of schools. Students may not apply directly for the scholarship.

FGLSAMP – Florida Georgia Louis Stokes Alliance for Minority Participation (Legislature): Undergraduate, full time students in the areas of Physics, Biology, Computer Science, Mathematics, Chemistry, Engineering, minimum GPA 2.75, must be a U.S. citizen or resident.

Hispanic College Fund, Inc. – Must be a U.S. citizen of Hispanic background residing in the fifty states or Puerto Rico. Must be pursuing a bachelor's degree in business, computer science, engineering or business-related major.

Society of Hispanic Professional Engineers SHPE – SHPE/Honors – Undergraduate, fulltime engineering students, minimum GPA 3.00, must be an American citizen. During the summer students must participate in an internship at NASA.

Non-Residents and International Undergraduate Students – For more detailed information on these scholarships, applicants should contact the Office of Admissions, PC 140 University Park, (305) 348-4100.

FMI – Florida Mexico Institute – Out of state tuition waviers – Students Who Are Eligible: Students who have been admitted or who meet admission requirements to any university or community college of the public education system of the state of Florida. Preference will be given to graduate students. Mexican citizens studying in Florida with student visas. Students who make a commitment to return to Mexico after the completion of their studies for a length of time equal to their exemption period, as required by the scholarship program.

Academic Requirements: GPA (3.0) and SAT, ACT, CLAST, GRE, GMAT and/or TOEFL scores appropriate for admission to Florida community colleges and universities. Proof of test scores must accompany applications. Evidence of good academic standing for all previous and current levels of study, as well as a sufficiently good record to be admitted to intended educational program of study. Since this is a merit scholarship program, the level of academic achievement is important.

FCI – Florida Caribbean Institute – Out of state tuition waivers: The Florida Caribbean Institute (FCI) is a state-funded program co-directed by Florida International University and Daytona Beach Community College. Its purpose is to expand cultural, educational and commercial ties between the state of Florida and the countries of the Caribbean Basin. FCI offers out-of-state tuition waivers for qualified Caribbean students to attend any of Florida's public universities or community colleges. It also pursues exchange programs and sister university relationships between members of the Florida State University System and counterparts in the Caribbean, including the University of the West Indies (Jamaica and Trinidad campuses) and institutions in the Dominican Republic. In addition, and FCI scholarship program makes it possible for Florida school teachers to attend FIU's Haitian Summer Institute.

Non-Florida Residence Scholarship Award

Dean's Merit Scholarship – For residents and non-residents. Must be a full-time student in junior standing with a minimum GPA of 3.5. All engineering disciplines welcomed.

Tuition Waivers – The College of Engineering and Computing offers tuition waivers for out of state and international students. Students must apply every semester and can apply on line: www.eng.fiu.edu or applications are available at the Dean's Office, at the Advising center, and at the departments. Usual deadlines: applications will be available as follows:

For Fall semester: July

For Spring semester: November/December

For Summer: March/April

Eligibility Criteria: International Students or Non-Florida Residents, Full time students, Juniors, Seniors (fully admitted to the College of Engineering and Computing) Overall GPA 3.3 or above, Only FIU College of Engineering and Computing courses will be covered. Limit of 4 semesters of tuition waiver support Contact Person: Rosemaire Disla, Program Assistant, Dean's Office.

Student Organizations and Clubs

Student organizations and clubs enrich the campus in so many ways. They provide an outlet for learning outside the classroom, for meeting other people, for sharing interests, for broadening one's horizons, for developing life, work & leadership skills, for gaining experience, and for engaging students as citizens of the campus community. At FIU College Engineering, we follow the philosophy that education is not something to be confined to the classroom. Students grow intellectually and socially by engaging in a broad range of activities. One of the best ways to start this exploration is by participating in student organizations. Our campus has deep traditions of active involvement and student leadership, and student organizations play a significant role in helping to nourish those traditions. By participating in these groups, students not only enrich their own experiences, but those of their peers, and that is the ideal of shared learning. Listed are some of our currently active student organizations and clubs.

ACE – Association of Cuban-American Engineers

AGC – Associated General Contractors of America
APM – Alpha Pi Mu – Industrial Engineering Honor Society
ASCE – American Society of Civil Engineers
ASHRAE – American Society of Heating, Refrigeration & A/C Engineers
ASM/TMS – American Society of Metals, Minerals Metal and Materials (Triple M)
ASME – American Society of Mechanical Engineers
BMES – Biomedical Engineering Society
CHI EPSILON – Civil Engineering Honor Society
ESC – Engineering Student Council
FES – Florida Engineering Society
FWEA – Florida Water Environment Association
HKN – ETA KAPPA NU – Electrical Engineering Honor Society
IEEE – Institute of Electrical and Electronics Engineers
IIE – Institute of Industrial Engineers
INFORMS – Institute for Operations Research and Management Science
ITE – Institute of Transportation Engineers
MAES – Mexican-American Engineers & Scientists
NSBE – National Society of Black Engineers
PI TAU SIGMA – Honorary Mechanical Engineering Fraternity
OMEGA RHO – The International Honor Society of Operations Research and the Management Sciences
SAE – Society of Automotive Engineers
SIGMA LAMBDA CHI – International Construction Honor Society
SHPE – Society of Hispanic Professional Engineers
SWE – Society of Women Engineers
XE – CHI EPSILON – National Civil Engineering Honor Society
TBPi – TAU BETA PI – National Engineering Honor Society
TXA – TAU CHI ALPHA – National Environmental Honor Society

All of these student organizations and clubs have a link on our FIU website, http://www.fiu.edu.

Women in Engineering

For over 100 years women have been working in the field of Engineering. The long list of Nobel Laureates would inspire anyone to become an Engineer. At FIU 22% of our undergraduate student are women which exceeds the national average of 19%. 25% of our graduate students are women which exceeds the national average of 21% and 24% of our PhD students are women exceeding the national average of 19%. FIU produces over three times the national average of female engineers. We are working along with major corporations such as Motorola to set up student internships, Co-op programs and joint research. The FIU College of Engineering and Computing is proud to announce that for the second time in two years Motorola has awarded the college a grant of $10,000 in support of the "Motorola Women in Engineering" program. Motorola is committed to the promotion of aspiring professional women engineers in our community. Please visit our website at http://www.fiu.edu/mwie for more information.

International Students

Florida International University (FIU) is a multicultural environment where differences in culture are not only welcome but required. We pride ourselves in the fact that 19% of our students are International. This allows all FIU students to be more culturally knowledgeable and prepared for global challenges in the work place. There are 313 international students from over 80 different countries in the College of Engineering and Computing. The International Student and Scholar Services provide information and services to international students. It also provides helpful tips on registration, the cashiers office and even travel. Please visit our website at www.fiu.edu for more information.

General Requirements for a Baccalaureate Degree

In order to obtain a Bachelor's degree from the College, each student must satisfy the following minimum requirements:

1. Obtain the minimum number of semester credits required by the specific program. Specific requirements are described in the sections devoted to the various departments in the College.
2. Complete at least 35 semester credits in the upper-division at FIU.
3. Attain a minimum grade point average of 2.0 in all courses taken at the University.
4. Satisfy the general education requirements of the State of Florida for the Bachelor's degree.
5. Satisfy the particular requirements for his or her own major and all University requirements for graduation.

Scientific Laboratory Fee

Scientific laboratory fees are assessed for certain courses where laboratory classes are part of the curriculum. Specific information on scientific laboratory fees may be obtained from the academic departments or University Financial Services.

Prerequisites

Students must have met the prerequisites and corequisites to register for any course. Otherwise, the student will be dropped from the course before the end of the term, resulting in a grade of 'DR' or 'DF'. Students should refer to the Catalog or see an advisor to determine course prerequisites.

Course Repeats

This varies depending upon the particular program. For more information consult your advisor.

Policies, Requirements, and Regulations

The University, the Graduate School, and the College of Engineering and Computing have a set of guidelines to protect the student's rights and to ensure a timely graduation. Students must become familiar with all university, Graduate School, and College's graduate procedures. These procedures are described in the University's Student Handbook.

The programs, policies, requirements and regulations listed in the catalog are continually subject to review to serve the needs of the University's various publics, and to respond to the mandates of the FIU Board of Trustees and the Florida Legislature. Changes may be made without advance notice.

Florida International and the College adhere to opportunity practices, which conform to all laws against discrimination and are committed to non-discrimination with respect to race, color, creed, age, handicap, sex,

marital status, or nationality. Additionally, the University is committed to the principle of taking positive steps necessary to achieve the equalization of educational and employment opportunities.

Department-Specific Information

Please refer to your selected department in this catalog for additional information, or call the department:

Biomedical Engineering	(305) 348-6950
Civil and Environmental Engineering	(305) 348-3055
Construction Management	(305) 348-3172
Electrical and Computer Engineering	(305) 348-2807
Industrial and Systems Engineering	(305) 348-3491
Mechanical and Materials Engineering	(305) 348-2569
School of Computing and Information Sciences	(305) 348-2744

Important Contact Information

Web site: ***http://www.eng.fiu.edu***

Admissions	(305) 348-2363
College of Engineering and Computing – Undergraduate Admissions	(305) 348-1635
Campus Resources	(305) 348-2973
Career Services	(305) 348-1281
Financial Aid	(305) 348-2489
Graduate School	(305) 348-2455
International Student Services	(305) 348-1913
Registrar's Office	(305) 348-2320
Scholarships	(305) 348-1869
Tuition Waivers	(305) 348-1869

Special Programs

The College is actively engaged in a number of special programs as a service to the community and the University. Among these programs are:

Florida Action for Minorities in Engineering (FLAME)
This is a cooperative program between Miami Coral Park Senior High School and Florida International University aimed at introducing the profession of engineering to high school students, and to identify, select, enroll and retain minority students in the engineering field. Senior High School students also registered for dual enrollment classes at FIU.

Florida/Georgia Louis Stokes Alliance for Minority Participation (FGLSAMP)
This is a National Science Foundation funded program in association with Florida Agricultural and Mechanical University (FAMU), the leading institution. This program focuses on engineering, math chemistry, biology, physics, and computer science undergraduate students. Participants receive scholarships, during the entire academic year based on high GPA and being a full time student. Opportunities for summer internships are available.

Junior Engineering Technical Society (JETS)
(TEAMS)
The JETS **Test of Engineering Aptitude, Mathematics and Science (TEAMS)** is an academic problem-solving competition, that serves all public and private high schools within our geographical area with focus on a one day activity at Florida International University.
(NEDC)
The **National Engineering Design Challenge (NEDC)** is a high school engineering-based program in which teams from the state of Florida attend our university to demonstrate a working solution to a societal need. The focus of this competition is to involve students in exciting learning experiences and to encourage young people to pursue engineering and technology careers.
(UNITE)
A collaborative effort between Florida International University, the U.S. Army, and the Junior Engineering Technical Society. The JETS UNITE Program's goal is to increase the number of underrepresented students in the field of engineering, to improve the performance of the students in their SAT/ACT exams, develop resourceful, self-motivated well rounded graduates who will be responsible and well adjusted citizens.

(NEAS+)
The JETS **National Engineering Aptitutde Search+ (NEAS+)** is offered to high school students to measure their readiness for college engineering and technology study. This self-assessment package allows students to "test" themselves in three basic engineering skills areas: applied mathematics, science, and reasoning.

SECME/District Olympiad
This program is in conjunction with Miami-Dade County Public Schools and other local universities and colleges. It serves middle and high school students in a variety of competitions such as: egg drop, mouse trap car, bridge, brain bowl, etc. The College of Engineering and Computing at FIU is a co-sponsor of this activity in Miami-Dade County

Proyecto Access/Miami Prep
A nationwide adaptation of the Texas Pre-freshman Engineering Program. This program is a collaborative effort of the Hispanic Association of Colleges and Universities (HACU), the University of San Antonio, and the National Aeronautics and Space Administration (NASA). Its goals are to identify socially and economically disadvantaged achieving middle school students who are interested in science and engineering careers and to provide them with necessary enrichment in the pursuit of these careers.

ENLACE MIAMI Initiative (Engaging Latino Communities for Education) is a planning grant funded by the W.K. Kellogg Foundation, which strives to improve higher education opportunities for the Hispanic youth community. "Enlace will strengthen the pipeline, so that more Hispanic youth will enter and complete college". Florida International University together with local public and private entities is developing a proposal for the implementation of a program that addresses the educational needs of Hispanic students in the Coral Park feeder pattern. Partners include: Miami-Dade County Public Schools, Miami-Dade County Public Library System, Institute of Electrical and Electronics Engineers, Miami Chapter, The Center for Urban Education and Innovation, Aspira of South Florida, The Non-Violence Project, the Spanish Broadcasting System, and CAMACOL (The Latin Chamber of Commerce of USA).

GEAR UP Homestead
The GEAR UP Homestead project assists a maximum number of students living within the Homestead area achieve a college career, while implementing a self-sustaining system to continuously duplicate the process. Homestead Florida is faced with serious issues that require assistance from other communities, such as poverty, lack of jobs, and problems related to

disadvantaged societies. Fortunately, with the development of the GEAR UP Homestead Partnership Plan as well as the aide to public, private and governmental institutions, the targeted cohort students of the Homestead area will be able to reach their maximum potential through a college education. Partners such as the US Department of Education will supply a vast portion of the resources needed to perform this project. Aspira, a non-profit organization, is dedicated to creating leadership through education for those who are disenfranchised, or socially and economically disadvantaged. Another important team player is the Non-Violence Program of Miami, contributing the idea that knowledge is the best weapon against violence, and motivating young people to engage in positive action to make our communities safer.

The GEAR UP project is made of several components that contribute to a wider reach into insuring that a maximum result is gained by everyone involved. Among these components are in-school tutoring and assistance programs. The Summer Enrichment Program offers an alternative way of spending those long summer days. The teacher training Development Program, as well as PRISM (Program of Industry Supported Mentorship's) enrich teachers with the right preparation to confront all kinds of situations. Perhaps the most important aspect that will contribute to the outcome of the child is the parental influence and family involvement into their success. In a fast-paced and demanding society, this is often a difficult threshold to cross. Parent Involvement Program (PIP) encourages parents to have a positive active role in their child's every day awareness of the future. Education begins in the home and ends in the child's decision to instill a safe and productive future. The powerful drive needed to assist the process of growth and awareness is the very reason for the existance of programs such as GEAR UP.

The mission of the partnership addresses the needs of the student by bringing the necessary awareness and readiness for a successful college education. To succeed such advancement, GEAR UP has established a mission, goals, objectives and outcomes that will serve as the foundation for a successful program. The dedication of the partnership as well as a Vision Statement that clearly unifies the community to serve its future provides an inspiration: that the education of today paves the road towards tomorrow's success.

Project MASST – Mathematics/Applied Sciences Teachers' Training

A pre-service and in-service teachers' training program designed to improve the quality of elementary and middle school science and mathematics education. Topics, content knowledge, experiments, and the latest information concerning teaching methodology are created and compiled by a consortium: the NASA/Kennedy Space Center, the Miami – Dade County Public School System, the Public School System of Puerto Rico, Universidad del Turabo and Florida International University.

Tele-MAESTRO Mathematics, Arts, Engineering, Science, and Technology Reach Out

A newly funded and innovative education program developed in the Spanish Language, by and for Hispanic minorities. The purpose of the program is to bring mathematics, science and technology to Hispanic youth through televised, Spanish-Language Media in its mission to bridge the technology gap which exists for this nation's Hispanic minority. The consortium, made up of federal agencies, learning institutions, community organizations, and Spanish-language television network will work to engage Hispanic youth of elementary and middle school ages in scientific exploration.

Research and Development Centers

Advanced Materials Engineering Research Institute (AMERI)

W. Kinzy Jones, *Director and Professor, Mechanical and Materials Engineering*

The Advanced Materials Engineering Research Institute provides an open access equipment infrastructure to support materials research and engineering over a broad range of technology and capabilities. The Institute provides analytical instrumentation, materials characterization, and process development laboratories to support faculty and industry in the development and characterization of new materials over the continuum from the nanoscale to bulk materials.

The analytical Instrumentation Laboratory contains a field emission scanning electron microscope (FESEM), a 200 kev Transmission Electron Microscope (TEM), Atomic Force Microscope (AFM), X-ray diffraction, thermal (DSC, TGA, DMA, dilatometer flush diffusion, and mechanical testing (uniaxial/biaxial Instron, creep). Process Development laboratories for ceramic processing (sol-gel, tape casting, milling), polymer processing, metal processing, and arc melting, thermal processing (air, vacuum, hydrogen, controlled atmosphere furnaces) are available to support faculty and student researchers.

The Institute consists of the Center for Nanofabrication and Devices, which is supported by a class 100 clean room and nanofabrication capabilities including e-beam lithography and optical photolithography. Fabrication of nano/micro electromechanical systems (N/MENS) can be accomplished by a combination of nanolithography, focused ion beam (FIB), micro machining, reactive ion etching, and thin film deposition by a variety of techniques (e-beam, sputtering, filament evaporation, cvd).

In addition to supporting research within the graduate program in materials science within the Department of Mechanical and Materials Engineering, the Institute supports faculty across all departments (physics, chemistry, geology, biology, electrical and computer engineering and biomedical engineering) in materials based research.

Research and Support Staff

W. Kinzy Jones, *Director and Professor, Mechanical and Materials Engineering*

Arvind Agarwal, *Assistant Professor, Mechanical and Materials Engineering*

Wonbong Choi, *Associate Professor, Mechanical and Materials Engineering*

Eric Crumpler, *Assistant Professor, Biomedical Engineering*

Sakhrat Khizroev, *Associate Professor, Electrical and Computer Engineering*

Norman Munroe, *Director, Applied Research Center and Associate Professor, Mechanical and Materials Engineering*

Roberto Panepucci, *Assistant Professor, Electrical and Computer Engineering*
Surendra Saxena, *Professor, Mechanical and Materials Engineering*
Yuriv Vlassov, *Assistant Professor, Electrical and Computer Engineering*
Kuang-Hsi Wu, *Professor, Mechanical and Materials Engineering*
Yesim Darici, *Associate Professor, Physics*
Sukky Jun, *Assistant Professor, Mechanical and Materials Engineering*
Watson Lees, *Associate Professor, Chemistry*
Kevin O'Shea, *Associate Professor, Chemistry*
Yanqing Liu, *Research Engineer*

Applied Research Center (ARC)

Dr. Fernando Miralles-Wilhelm, *Interim Director of Research*
Rob Rose, *Associate Director for Waste Management*
Dr. Dave Roelant, *Associate Director for Defense Technologies*
Dr. Rajiv Srivastava, *Associate Director for Environment*
Dr. Walter Tang, *Associate Director for Water*
Dr. Norman Munroe, *Associate Director for Energy*
Dr. George Philippidis, *Associate Director of Research Development*
Richard Burton, *Senior Program Manager*

ARC is an applied research and development (R&D) and technology deployment center that attracts funding not only for advancing academic research but also for supplying technical services. ARC's mission is to research, develop, and disseminate technologies and information for solving waste, defense, water, environmental and energy issues throughout the Western Hemisphere. To fulfill its mission, ARC conducts research that creates new knowledge and understanding of challenging scientific and engineering problems and develops innovative solutions to complex real-world issues. Furthermore, ARC acts as a bridge among government, business and academia for the transfer and utilization of knowledge and technologies that promote economic benefit, national security and sustainable development.

Waste Management – ARC provides a full spectrum of waste management research capabilities and services with experience supporting waste management and pollution prevention activities for numerous federal agencies and private contractors. The Center's waste processing research program develops innovative, cost-effective technologies to help clients protect the environment from chemical pollutants generated as nuclear, industrial and agricultural waste. A significant portion of ARC's R&D activities focus on the safe and efficient remediation and deactivation of nuclear facilities; the characterization, management, and reduction of radioactive and hazardous waste; and the development and acquisition of environmental information technologies and systems. These technology development activities support U.S. Department of Energy-Environmental Management (DOE-EM) programs in various areas, such as: applied instrumentation and monitoring development; alternatives to nuclear waste management and disposition; attenuation of soil and groundwater contamination; environmental risk assessment and regulatory compliance research; as well as engineering studies for contaminated soil removal. Furthermore, these technology development activities are of significant interest to domestic and international commercial interests.

Fossil and Renewable Energy - The country's new energy policy emphasizes the importance of combining cleaner use of fossil fuels with the development of alternative energy and the adoption of energy efficiency techniques. As a result, there is great demand for R&D covering the full spectrum of energy resources from natural gas to hydrogen utilization to fuel cell systems. Capitalizing on the national emphasis on clean and renewable energy, ARC has enhanced its research and technology development activities in various energy fields and has created an affiliate center, the Center for Energy and Technology of the Americas (CETA). ARC is developing technologies for clean and high-efficiency combustion systems that reduce air emissions, hydrogen production, purification, storage, cost-competitive high temperature PEM fuel cells and intermediate temperature solid oxide fuel cells serving as distributed energy systems, biomass thermochemical conversion, and energy-efficient and environmentally friendly heating and cooling systems.

Reliable and adequately priced energy supplies are some of the most important building blocks for economic growth, job creation and hemispheric security. Most scenarios for world, and regional, energy demand predict strong increases in the coming decades and will likely be met, if no measures or policies are put in place, by increased oil and gas production from countries in the Persian Gulf and the former Soviet Union. This reliance on supplies from the Middle East amplifies the political and economic risks the world faces today.

Fortunately, there is great potential for increased energy supplies from the Western Hemisphere that could help mitigate these risks. However, many hurdles must first be overcome such as inadequate regulatory and tax frameworks, rights of way and permitting, access to capital markets, environmental, political and social issues and the obvious, and very relevant, technological challenges. It is the goal of ARC and CETA to solve these challenges through its research and development inititatives.

Environmental Remediation – At ARC, our commitment to the environment spans a breadth of concerns, from soil and groundwater cleanup to the treatment and disposition of hazardous wastes, to the decontamination and decommissioning of surplus nuclear and industrial facilities. We have performed over 200 projects worth over $70M in the environmental arena.

The Environmental program at ARC offers a full suite of environmental R&D and engineering support services covering the entire gamut, from fate and transport of contaminants in soil and groundwater to innovative engineering and technology development and assessment. ARC scientists and engineers have proven expertise in soil and water analysis; radioactive, hazardous, transuranic, high-level, and mixed waste treatment and disposal; decontamination of facilities; sensors and monitoring systems; and robotics. Our activities include: contaminant fate and transport; assessment, remedial design and implementation; Brownfields redevelopment; and long-term monitoring and stewardship.

Water Engineering – ARC provides unique capabilities in treatment, remediation, bioremediation, contaminant

characterization, desalination and restoration. Secure and affordable water supplies are the building blocks for economic growth and competitiveness. The Applied Research Center has expertise, instrumentation, dedicated laboratories and pilot-scale facilities to tackle multidisciplinary problems in water treatment and purification processes, energy-efficient water cleanup, as well as surface water and groundwater pollution characterization. ARC conducts soil and water R&D for a variety of clients in the public and private sectors. Recent projects have focused on cutting-edge methods of employing natural processes to remove contamination from soil and water, automated sampling and remote monitoring systems for soil and groundwater, and information management to support informed decision making related to soil and water remediation technologies.

Through research supported by the U.S. Army, ARC is developing, fabricating and demonstrating mobile water purification systems in Latin America. Projects like this will assist the U.S. Army and other militaries in the Western Hemisphere in solving common problems related to the environment, energy and infrastructure. ARC is working on ways to provide safe drinking water, sanitation and water quality control in disaster areas.

Defense Technology – Researchers at the Applied Research Center have conducted research on many defense science and technology projects in the past decade. During the past three years, the Center has conducted research on twelve projects with an overall value of more than $4M.

Clients such as the U.S. Air Force Office of Scientific Research (AFOSR), the Air Force Research Laboratory (AFRL), the Army Research Office (ARO), the Missle Defense Agency (MDA), Defense Advanced Research Projects Agency (DARPA), and the National Reconnaissance Office (NRO) have partnered with the Center on research. This research includes: integration of sensoring and imaging systems into autonomous monitoring technologies, such as remote ground stations and unmanned aerial vehicles (UAVs) and unmanned ground vehicles (UGVs); Computational Fluid Dynamics analyses and experimental research for microchannel nozzle flow for space vehicle thrusters, hypersonic flow for Scramjets, modelverification of ice formation on wings, and microchannel cooling of electronic components; experimental and theoretical research on absorption of infrared laser radiation by animal tissue as a surrogate for human tissue; and numerical simulation of microbubble drag reduction for applications in naval ships and submarines.

ARC's capabilites in Defense Technology include: detection of radiological and chemical contaminants, remote monitoring, automated sampling, sensor testing and integration, imaging and sensor data collection and analysis, as well as modeling, simulation and visualization.

Doing Business with the Applied Research Center - ARC's employees are drawn from a wide segment of the commercial, government, and academic arenas to collectively utilize their combined experience and expertise to support the needs of ARC's clients. The Applied Research Center's operating philosophy recognizes and accommodates the critical performance characteristics of government and commercial activities, while exercising the benefit of its cost structure in a way that serves both client interests and those of the University and its students. The staff at ARC is fully engaged in the project and program actvities assigned, as well as in mentoring students through internships that expose them to real-world experiences in their chosen fields.

The critical difference in the Applied Research Center's structure is the administrative processes and structures that have been put in place to serve its clients. The Center has executed work for federal agencies, state and local governments, and commercial entities, in large part through task-based contracts. For instance, in working with the U.S. Department of Defense, the Center has acted as both the prime contractor and as a sub-contractor/consultant for commercial partners, serving to streamline the process.

For more information on FIU's Applied Research Center, please visit www.arc.fiu.edu.

Bioinformatics Research Center (BioRG)

Giri Narasimhan, *Director and Professor, School of Computing and Information Sciences*

The mission of this research group is to work on problems from the fields of Bioinformatics and Biotechnology. The group's research projects includes Pattern Discovery in sequences and structures, micro-array data analysis, primer design, probe design, phylogenetic analysis, image processing, image analysis, and more. The group builds on tools and techniques from Algorithms, Data Mining, Computational Statistics, Neural Networks, and Image Processing.

Center for Advanced Distributed Systems Engineering

Xudong He, *Director and Professor, School of Computing and Information Sciences*

Another of our research efforts is the Center for Advanced Distributed System Engineering (CADSE). Its mission is to establish a streamlined research, technology exploration and advanced training program in the field of distributed and Internet-based computing. The Center's R&D cover both theoretical and practical aspects of distributed software engineering, i.e. using engineering methods and technologies to tackle development problems of complex, reliable, and/or real-time distributed systems.

Center for Advanced Technology and Education (CATE)

Malek Adjouadi, *Director and Associate Professor, Joint Appointment with Biomedical Engineering and Electrical and Computer Engineering*

The vision of the NSF-CATE center at FIU is to foster a cross-disciplinary research and educational program as a catalyst for our undergraduates and graduates alike to develop their creative thinking by bringing in synergy the fields of applied information (signal and image) processing, neuroscience and assitive technology research. The CATE center focuses on new methodologies that (1) will enhance analysis and interpretation of signals and images in real-world applications; (2) will meet the impending needs in neuroscience as we elicit both the functional mapping of the brain, and the causality of key brain disorders; and (3) will result in new Human-Computer Interface (HCI) prototypes that address effectively the issue of *Universal Accessibility*, focusing on visual

impairment and motor disability. Experimental results, as observed through clinical means or through system design evaluations and feasibility studies serve as means to redefine or re-evaluate our theoretical premises. The strong collaboration we have secured with our industry partners generates joint programs, student internships, clinical rotations, joint faculty appointments, and shared use of modern equipment and infrastructure. The overall mission of the CATE Center is thus to create a unified infrastructure to synergize imaging/signal processing research, while fostering an environment that supports cross-disciplinary initiatives in order to produce new scientific specialties relying on combinations of specific technologies, medicine, and computation. This environment as set is apt to ensure the anticipated success in meeting our students' educational needs and research goals all the way to the Ph.D. level.

Research Areas

- Image and Signal Processing and Computer Vision
- Real-Time Assistive Systems and Human-Computer Interfaces
- Neuroscience: - EEG Brain Research – Functional Brain Mapping and Neurorehabilitation
- Biomedical Applications in Flow Cytometry and Confocal Microscopy
- Robotics for Motion Planning and Automated Guidance
- Parallel and Distributed Processing

Sponsors

- National Science Foundation (NSF)
- Office of Naval Research (ONR)
- Miami Children's Hospital
- Beckman-Coulter Inc.

Faculty

Malek Adjouadi, *Director and Associate Professor, Joint Appointment with Biomedical Engineering and Electrical and Computer Engineering*

Armando Barreto, *Director of the Digital Signal Processing Laboratory, Associate Professor, Joint Appointment with Biomedical Engineering and Electrical and Computer Engineering*

Ana Pasztor, *Professor, School of Computer Science*

Ilker Yaylali, *Courtesy Assistant Professor, Biomedical Engineering*

Gustavo Roig, *Associate Dean and Director Center for Diversity in Engineering*

Bob Coatie, *Director of FIU Office of Multicultural Services*

Research Partners

Prasanna Jayakar, *Director, Neuroscience Center, Miami Children's Hospital*

Arthur Karshmer, *Professor and Chair, Information Technology, University of South Florida*

Gualberto Cremades, *Assistant Professor at Barry Univeristy*

Rafael Delgado, *Executive Vice President and Director of Software Systems, Intelligent Hearing Systems, Miami*

Julie Jacko, *Director, Laboratory for Human-Computer Interaction, Georgia Tech University*

Gustavo Rey, *Neuropsychologist, Miami Childrens Hospital*

Coordinator, Student Recruitment

Stephanie Strange, *College of Engineering and Computing, Assistant Director of Recruitment and Retention*

Research and Support Staff

Melvin Ayala, *Manager, CATE Center*
Ana Guzman, *Assistant Manager, CATE Center*
Javier Delgado, *Distributed System Manager*
Christy Bedia and Mouncef Lahlou, *Webmasters*

Doctoral Students:

Mildred Zabawa, Mercedes Cabrerizo, Danmary Sanchez, Maria Tito, Anaelis Sesin, Ann Zong, Mourad Michel, Marc Rossman, Feng Gui, Melvin Ayala, Guillen Benavides Magno, You Xiaozhen, and Lu Wang

Master's Students:

Eddy Ruiz, Patrice Hernandez, Matthew Whittington, Nina Teng, Javier Delgado, Ana Guzman, Raj Prakash, Orville Anderson, Alejandro Simon, Daniel Sanchez, Adrian Marrero, and Luis Gonzalez

Partners

- The Brain Institute, Miami Children's Hospital
- Beckman-Coulter Inc.
- The Ware Foundation
- Intelligent Hearing Systems
- American Epilepsy Society

Related Laboratories and Facilities of the CATE Infrastructure

With the NSF and ONR continued support, the CATE center has helped in establishing the following laboratories: Interactive Design Laboratory for Undergraduates. *Funded by NSF-MII and Matching funds from the FIU Division of Sponsored Research and Training (DSRT)* – Housed with the ECE department facilities.

1. EEG Brain Research Laboratory. *Funded by NSF-MRI* – Housed within the Neuroscience Center at Miami Children's Hospital.
2. Web-Design Laboratory. *Funded jointly by ONR and NSF-MII* – Housed within the Engineering Information Center Facility.
3. The Computer Training Laboratory – Housed in Graham Center with the Office of Multicultural Services.

Center of Emerging Technology for Advanced Information Processing and High-Confidence Systems (CREST)

Yi Deng, *Director, Dean and Professor, School of Computing and Information Sciences*

The CREST center focuses on the following research areas: High-confidence reactive software systems, multidimensional-multimodal data modeling and query research, assistive technology research based on the design and development of real-time assistive systems, and advanced information processing with neuroscience applications. This multidisciplinary research and educational center serves as a resource for the education of underrepresented minority students as well as a driving force to increase diversity in graduate education, especially at the Ph.D. level in computer science and engineering.

Center for Diversity in Engineering

Gustavo Roig, *Director, Associate Dean of Engineering , and Professor, Electrical and Computer Engineering*

South Florida's distinction as a multi-cultured, multi-lingual region has long been a diverse source of talent for FIU, particularly in the College of Engineering and Computing. In response to the challenge of attracting this diverse community to science and engineering, the College of Engineering and Computing has created a special center for Diversity in Engineering.

By building sound foundations in sciences and mathematics, the Center helps to prepare young students to deal with the rigors of higher-level education, and Engineering in particular. Currently the Center has several on-going programs targeting Elementary, Middle, and High School level students. These programs are offered throughout the school year and during the summer. GEAR UP! (Gaining Early Awareness and Readiness for Undergraduate Programs), ENLACE MIAMI (Engaging Latino Communities for Education), FLAME (Florida Action for Minorities in Engineering), Proyecto Access/Miami PREP (Pre-freshman Engineering Program), JETS, Junior Engineering Technical Society, as a local chapter, benefits include access to superior proram materials (eduational packages, self assessments, real-world problem-solving scenarios, team-oriented learning and competitions). The program is designed to increase the technical skills necessary to achieve in basic, engineering skills, applied mathematics, science, and reasoning. Project MASTT, Mathematics/Applied Science Teachers' Training – a pre service in service tearchers' training program, funded by NASA/KSC, designed to imporve the quality of elementary and middle school science and mathematics education.

The Center also provides job and scholarship opportunities for FIU students. FGLSAMP (Florida-Georgia Louis Stokes' Alliance for Minority Participation) and SHPE Honores (Society for Hispanic Professional Engineers) provide many students with financial assistance. FGLSAMP and SHPE Honores scholarship recipients are assisted in acquiring internships. Many are offered Summer Research Internships at NASA Centers around the country.

The purpose of the Center is to recruit, retain, and graduate ethnically diverse student body that will increase the representation of traditionally underrepresented ethnic and gender groups in the field of engineering and will enrich the College of Engineering and Computing and the university as a whole.

Center for the Study of Matter at Extreme Conditions (CeSMEC)

Surendra Saxena, *Director and Professor, Mechanical and Materials Engineering*

CeSMEC's mission is to study the behavior of materials at high pressures and temperatures. The range of research activities includes the study of planetary interiors and of matter at extreme industrial conditions.

CeSMEC is one of few facilities in the country where pressures are created to many million atmospheres and temperatures to several thousand degrees; the material is studied under such conditions with x-ray and ectroscopic techniques.

All materials are subject to three fundamental variables – the variables of temperatures, chemical composition, and pressure. Modern science has vigorously used only the first two variables in exploring nature and creating several amenities of modern civilization. Pressure, the third fundamental variable altering all states of matter, has been for years a relatively minor esoteric sub-field.

The creation of this center is providing FIU's graduate students and faculty the opportunity to perform fundamental and applied research in high-pressure physics, high-pressure chemistry, and materials science. The center is raising the infrastructure at FIU to the level required to initiate world-class research in an emerging area of science and engineering.

Recent additions of a Hydrogen-Storage Materials Research Facility and a Microplasma CVD Diamond Growing Laboratory, researcher can perform synthesis of novel materials for a variety of industrial applications.

Distributed Multimedia Information Systems Laboratory

Shu-Ching Chen, *Director and Associate Professor, School of Computing and Information Sciences*

Another of our research efforts is the Distributed Multimedia Information System Laboratory (DMIS). It's mission is to conduct leading edge research in multimedia database systems, data mining, networking and wireless, GIS and Intelligent Transportation Systems. Other research areas of this effort include Multimedia Communications and Networking, Digital Library, 3D Animation, and Distributed Computing.

Division of Corporate and Global Programs

Ted Lee, *Acting Director and Chairperson, Industrial and Systems Engineering*

Cristina Aguirre, *Assistant Director*

The **Division of Corporate and Global Programs (DCGP)** is the organization unit within the **College of Engineering** and **Computing** that is responsible for managing the engineering programs offered under the rubric of **Executive Engineering Education.** The DCGP is managed by a director reporting to the Dean of Engineering & Computing. The director and staff of the DCGP work with department chairs, center directors and faculty members to identify corporate and global partners; develop, promote and manage Executive Engineering Programs; and identify new opportunities and new markets for all programs that are offered by the College of Engineering. Various categories of programs in which the DCGP-division is involved include the following;

Global Programs

The global programs focus on the demonstrated education and training needs of selected industrial sector(s) in the host country. These programs are offered in collaboration with a sponsor which is a reputed university or institution that can support the delivery of the program by providing appropriate infrastructure facilities like classrooms, library and computer laboratories. The programs are designed in consultation with the faculty of the sponsor and the industry representatives in the host country. The goal of the global programs is to complement the existing academic programs offered by the sponsoring institution.

Global Programs

- Corporate Programs
- Certificate Programs
- Weekend Programs
- International Student Transfer Programs

Corporate Programs

The Corporate Programs are designed for an individual corporation leading to an academic degree, certificate or short-term executive development program. The programs are delivered on site and the program delivery is supported by providing infrastructure facilities. Corporate programs are designed to meet the specific educational and training needs of the corporate clients.

Engineering Information Center (EIC)

Hernan Bormey, *Director*

Create a technology that will help save lives or create your own website, simulate an electronic circuit, design a bridge, or just browse the Internet. The possibilities are endless at the Engineering Information Center

The EIC helps faculty, scientists, researchers, and students to conduct cutting edge research and work on system designs, networking, scientific visualization, 3D Modeling, simulations, virtual reality, computer animation, and other computer and software applications.

The Center manages an array of Novell, Windows, and UNIX network servers that provide faculty, staff and students with the capacity to share valuable resources; therefore, fostering an atmosphere where collaboration and instruction grow with a synergy that is unique. Beyond the college community, the EIC participates in sponsoring special outreach programs for the Miami-Dade County Public Schools by exposing young minds to latest technologies.

The EIC is also home to The Graphic Simulation Laboratory with focus on Scientific Visualization, 3D Computer Modeling, and Virtual Reality, which have helped researchers to develop a wide array of technologies, strategies, and information designs. GSL has collaborated with NASA, The Center for Super Computing Applications, National Science Foundation, Computational Science Institute, Shodor Organization, Macromedia, and Kellogg Foundation, just to mention a few. From hardware to software support to 3D modeling of a heart valve, the EIC delivers exceptional services with a personal touch.

Engineering Manufacturing Center (EMC)

Shih-ming Lee, *Director, Chairperson and Associate Professor, Industrial and Systems Engineering and Acting Director, Division of Corporate and Global Program*

Mario Sanchez, *Senior Engineer and Manager*

The objective of the Engineering Manufacturing Center (EMC) is to prepare manufacturing engineers for an era where enterprises will be mostly information-based and international in nature. It is divided into major labs which provide a seamless integration of computerized engineering tools for design (CAD), manufacturing (CAM), inspection (CM), and rapid prototyping (RP) for mechanical and electronic product design and fabrication.

The *Rapid Product Realization Laboratory* consists of a design front end, an RP center for mechanical/electrical components, and computer driven manufacturing and inspection systems. The design center enables design with Pro/Engineer and analysis by finite element packages. The RP facility utilizes three different techniques: stereolithography, fused deposition modeling and laminated object manufacturing. Mechanical parts are fabricated with a Vertical Machining Center, a CNC turning center, an EDM machine and a traveling wire EDM. Production capabilities are enhanced by an injection molding machine and dimensional analysis, verification and reverse engineering capabilities are provided by a coordinate measuring machine.

EMC regularly schedules training courses in Pro/Engineer and other industry-specific software at substantial discounts. Course instructors typically come from industry, bringing real-life hands-on experiences to the class. Companies served by EMC range from entrepreneurial to the well-established, some of which include aerospace, automotive, marine, medical and consumer product manufacturers. EMC's resources and technical expertise in speciality areas, such as rapid product design/development and manufacturing are available to the industrial community.

For more information, call the EMC at (305) 348-6557, directly contact Mario Sanchez (sanchem@fiu.edu), or refer to our website at www.eng.fiu.eduEMC.

Eugenio Pino and Family Global Entrepreneurship Center

Alan L. Carsud, *Executive Director*

The Eugenio Pino and Family Global Entrepreneurship Center at Florida International University, founded in 2003 with a grant from the Kauffman Foundation of Kansas City, facilitates all entrepreneurial activities at FIU. The Center provides campus-wide awareness of entrepreneurship as an approach to life that enhances and transcends traditional academic experiences. It is woven into the fabric of the university through entrepreneurial activities and courses across the university. The multi-dimensional nature of the Center allows it to address the unique entrepreneurial needs of one of the nation's largest ethnically diverse academic institutions, located in one of America 's most entrepreneurial and dynamic international cities, Miami . In 2004 the Center was named for Eugenio Pino, a Cuban-American serial entrepreneur and his family.

FEEDS Programs

Mercy Rueda Schoot, *Director*

The Florida Engineering Education Delivery System (FEEDS) is a statewide distance learning system providing access to graduate and undergraduate level engineering courses and programs to individual students anywhere and anytime, whether it is at home or the workplace. Courses are delivered through one or more of the following methods: CD-Rom, streaming video over the Internet; and fully on-line.

FEEDS offers engineering students and professionals with work and family responsibilities the flexibility to take courses around their busy schedules. It also provides convenience to those who are not within driving distance

of an academic institution. It allows them to continue their professional development, which plays an important role in the growth of high technology industries.

Currently, students can select the necessary courses from FIU via distance learning to obtain a Master's degree in Civil Engineering, Environmental Engineering, Construction Management and Engineering Management and a bachelor's degree in Construction Management.

A student taking a course through FEEDS must meet the same requirements as the student on campus and will earn the same credit as if he/she were to attend classes on campus. A student need not be enrolled in a graduate or undergraduate degree program in order to take a course. However, a student who intends to seek admission to a program should be aware that no more than six (6) graduate or fifteen (15) undergraduate credits are allowed to be transferred into a program.

Future Aerospace Science and Technology Center for Cryoelectronics (FAST)

Grover Larkins, *Director and Professor, Electrical and Computer Engineering*

FAST-SC is one of six centers created by the Air Force as part of its minority university enhancement program, providing research experience opportunities for undergraduate and graduate students.

The FAST Center evaluates novel applications of space-based cryo-electronics, studying new systems for reduction in losses of feed and phase shift networks in phased array transmitter systems. This involves development of low-loss active integrated low-noise phased array or post-processed phased array down-converter receiving systems, high gain-low loss, low noise micro and millimeter wave circuits and systems for space based applications. Of particular interest is the ability to design and fabricate integrated systems which could be used as "steerable" phased array antennas with frequency-agility.

Current research is focused on issues relating to: Superconducting Micro-Electro-Mechanically switched filters and phase shifters.

High Performance Database Research Center

Naphtali Rishe, *Director and Professor, School of Computing and Information Sciences*

One of our research efforts is the High-Performance Database Research Center (HPDRC). HPDRC conducts research on such theoretical and applied issues as Internet-distributed heterogeneous databases, database design methodologies, database design tools, information analysis, multi-media databases, database languages, data compression, spatial databases, and data visualization. The Center also designs specific database systems for highly complex applications.

International Hurricane Research Center (IHRC)

Stephen P. Leatherman, *Director*
Kegi Zhang, *Laboratory for Coastal Research, Co-Director*
Shahid Hamid, *Laboratory for Insurance, Financial and Economic Research, Director*
Forrest Masters, *Laboratory for Wind Engineering Research, Director, and Assistant Professor, Civil and Environmental Engineering*
Dario Moreno, *Laboratory for Social Science Research, Director*

Serving the state of Florida, the IHRC is a Type I interdisciplinary research center focused on the mitigation of hurricane damage to people, the economy, and the built and natural environments. This designation makes the IHRC Florida's official hurricane research center for 11 universities comprising the state university system.

The citizens of the U.S. East and Gulf Coasts and Caribbean Islands are severely impacted by hurricanes, and IHRC promotes an interdisciplinary, large-scale disaster research agenda to address this vulnerability. Disciplines such as architecture, business, economics, engineering, finance, geosciences, insurance, political science, sociology, and urban planning are involved in a long-term, integrated research program that helps Florida, the nation, and its regional neighbors to mitigate hurricane exposure.

The Center developed as a result of a public-private partnership between the We Will Rebuild Foundation, an organization formed to spearhead the rebuilding of Dade County in 1992 after Hurricane Andrew, and FIU. The IHRC works in conjunction with the National Hurricane Center, which is also located at the FIU University Park Campus in West Miami-Dade.

Lehman Center for Transportation Research (LCTR)

L. David Shen, P.E., T.E. *Director, Associate Dean of Engineering and Professor, Civil and Environmental Engineering*
Fang Zhao, P.E. *Deputy Director and Associate Professor, Civil and Environmental Engineering*
Sylvan C. Jolibois, Jr., *Deputy Director and Associate Professor, Civil and Environmental Engineering*
Albert Gan, *Deputy Director and Associate Professor, Civil and Environmental Engineering*

The Lehman Center for Transportation Research (LCTR) at Florida International University was established in 1993 in honor of Congressman Bill Lehman and his tireless efforts to make South Florida a better place for all of us. The center's vision is to become a strong 'state-of-the-art' transportation research and training facility. LCTR is committed to serve and benefit our society by conducting research to improve mobility, hence the quality of life issues, develop partnerships in the transportation industry, and educate a multidisciplinary workforce to plan, design, manage and implement transportation systems.

Faculty, staff and students at LCTR are involved in research related to the planning, design and operation of transportation systems, public policy, air pollution, and the application of geographic information systems and other advanced technologies such as artificial neural networks

and scientific visualization in transportation. Future plans include networking with the public and private industry to collaborate on transportation related research. In addition, applied research will be conducted on, but not limited to intelligent vehicle and highway systems.

Motorola Nanofabrication Research Facility

W. Kinzy Jones, *Director and Professor, Mechanical and Materials Engineering*
Neal Ricks, *Lab Manager*

The first centralized facility of its kind in Florida, the Motorola Nanofabrication Research Facility is an open-access initiative in support of nano-scale devices, systems and materials research that encompasses a broad range of technologies and capabilities. The facility provides nanofabrication, analytical instrumentation, materials characterization and process-development laboratories for students, faculty and industrial researchers. This $15 million Research Facility is an integral part of the Advanced Materials Engineering Research Institute (AMERI), FIU's broader materials research program.

Harnessing the synergy inherent in the study and development of nanoscale technologies, the facility boasts:

- Specialized equipment required to develop new fabrication techniques unique to the creation of functional materials and devices that are no greater than 100 nanometers (1,000 times smaller than the diameter of a human hair);
- A full complement of standard semiconductor processing equipment to leverage the capabilities of robust and proven techniques; and
- State-of-the-art analytical tools to study, and characterize these nano-sized devices, as well as the materials and processes used to make them.

The Nanotechnology Faculty Team

Arvind Agarwal, *Assistant Professor, Mechanical and Materials Engineering*
Frank Candocia, *Assistant Professor, Electrical and Computer Engineering*
Wonbong Choi, *Associate Professor, Mechanical and Materials Engineering*
Roman Chomko, Assistant Research *Professor, Electrical and Computer Engineering*
Eric Crumpler, *Assistant Professor, Biomedical Engineering*
George Dulikravich, *Professor and Chair, Mechanical and Materials Engineering*
Sukky Jun, *Assistant Professor, Mechanical and Materials Engineering*
Sakhrat Khizroev, *Associate Professor, Electrical and Computer Engineering*
Grover Larkins, *Associate Professor, Electrical and Computer Engineering*
Watson Lees, *Associate Professor, Chemistry*
Wenzhi Li, *Research Faculty, Chemistry*
Anthony McGoron, *Assistant Professor, Biomedical Engineering*
Roberto Panepucci, *Assistant Professor, Electrical and Computer Engineering*
Surendra Saxena, *Professor, Mechanical and Materials Engineering*
Frank Urban, *Associate Professor, Electrical and Computer Engineering*
Yuriy Vlasov, *Assistant Professor, Electrical and Computer Engineering*

Telecommunications and Information Technology Institute

Niki Pissinou, *Director and Professor, Electrical and Computer Engineering*

Florida International University (FIU) recognizes the need to nurture highly trained personnel for the nation's industry and business, develop research to support the rapidly expanding high-tech industry and become proactive in technology transfer. Thus, ensuring continued economic growth and prosperity. In order to fully meet today's technological demands, FIU has established the Telecommunications and Information Technology Institute (IT^2). IT^2 promotes advanced multi-disciplinary education and research focused on telecommunications and information technologies. IT^2's mission is to:

1) Deliver high quality telecommunications and information technology education and training.
2) Conduct and promote research to enhance Florida's role as a leader in telecommunications and information technology.
3) Offer training that is needed to foster business development and workforce preparedness.
4) Promote technology transfer to enhance the enabling technologies of the telecommunication and information technology industries.

In fulfilling its mission, IT^2 promotes multidisciplinary collaboration and serves as the catalyst to promote intellectual cross-fertilization among disciplines. This effort results in the synergistic enhancement of teaching and research, so critical in the telecommunications and information technology fields, where disciplinary barriers are falling and lines are blurred. An objective of the Institute is to infuse telecommunications and information technology content into the curriculum at all appropriate levels. To fill the urgent demand of industry, the institute is developing interdisciplinary telecommunication programs that provide certificate programs, Bachelors, Masters and Ph.D. degrees.

IT^2 constitutes an infrastructure that is viable for cutting edge research activities. Researchers at the institute conduct funded research and development targeted at solving complex prolems conducive to the early identification of high impact opportunities. Of particular importance to the institute's research efforts is the emerging global wireless, optical and personal communications infrastructure and the ability to represent, store and access information to perform a variety of information related tasks. To provide an effective forum for original research results and to foster communication among researchers industry leaders can collaborate on education, training, and re-engineering the telecommunications workforce of the future. The alliance provides effective ways to educate the workforce of the 21st century. In accordance, the institute provides technical assistance and applied research services to transfer acquired knowledge and technologies to the commerical sector. The IT^2 team can work with industrial organizations to tap into some technological innovation that drive the industry to its strategic advantage.

For more information, contact Dr. Niki Pissinou, the director of the Telecommunications and Information Technology Institute, at (305) 348-3987 or visit our website at www.it2.fiu.edu.

Core Faculty

Niki Pissinou, *Director/Professor*
Kia Makki, *Lucent Technology Professor*
Hao Zhu, *Assistant Professor*

Affiliated Faculty and Research Faculty

Kang Yen, *Chairperson and Professor, Electrical and Computer Engineering*
Wunnava Subbarao, *Professor, Electrical and Computer Engineering*
Tadeuz Babij, *Professor, Electrical and Computer Engineering*
Jean Andrian, *Associate Professor, Electrical and Computer Engineering*
Shih-Ming Lee, *Chairperson and Asscociate Professor, Industrial Engineering*
Ronald Giachetti, *Associate Professor, Industrial and Systems Engineering*
Marc Resnick, *Associate Professor, Industrial and Systems Engineering*
Osama Mohammed, *Associate Chairperson and Professor, Electrical and Computer Engineering*
Raimund Ege, *Associate Professor School of Computer Science*
Juan Polanco, *Research Faculty*
Lance Hester, *Research Faculty*
S. Huang, *Research Faculty*

Biomedical Engineering

Richard Schoephoerster, *Chairperson and Professor*
Malek Adjouadi, *Associate Professor*
Rebecca Anderson, *Instructor and Undergraduate Advisor*
Armando Barreto, *Associate Professor*
Michael Brown, *Instructor*
James Byrne, *Laboratory Instructor*
Eric Crumpler, *Assistant Professor and Graduate Program Director*
Anuradha Godavarty, *Assistant Professor*
Prasanna Jayakar, *Research Professor, Miami Children's Hospital*
Wei-Chiang Lin, *Assistant Professor*
Anthony McGoron, *Associate Professor and Undergraduate Program Director*
Nikolaos Tsoukias, *Assistant Professor*

The mission of the Department of Biomedical Engineering is to integrate academia, clinical medicine, and the biomedical industry:

- In the education and training of the next generation of biomedical engineers;
- In research and development activities leading to innovations in medical technology;
- In transfer of that medical technology to commercialization and clinical implementation; and
- In the continuing development of biomedical engineering as a profession, its impact on the delivery of health care, and its role in the sustainability and growth of the local and national economies.

The Department of Biomedical Engineering at Florida International University offers a curriculum designed to give the student a thorough understanding of the basic laws of science and simultaneously to stimulate and develop creative and innovative thinking, a professional attitude, economic judgment, and environmental consciousness. The aim is to develop the student's potential to the fullest, to prepare the student for superior performance as a biomedical engineer, and to provide the student with the fundamental principles necessary for pursuing advanced study in the diverse fields of engineering, science, and business.

The objectives of the undergraduate Biomedical Engineering Program at FIU are the following:

1. To provide an education that is at the interface of engineering and biology, with an emphasis on engineering living systems down to the cellular and molecular levels, and adequately prepare graduates for a wide range of career opportunities, including:
   a. Advanced study in engineering, medicine, or the sciences
   b. Professional practice as a biomedical engineer in industry
   c. Entrepreneurial endeavors in the biomedical industry
2. To produce graduates whose careers demonstrate proficiency in one or more of the following:
   a. Clinical application of biomedical engineering tools
   b. Product development, manufacturing, and commercialization in the biomedical industry
   c. Participation in diverse teams
   d. Biomedical engineering research
   e. Entrepreneurship
3. To produce graduates who have a proper sense of professional responsibilities, service to community, leadership, ethics, and means of effective communication.

Bachelor of Science in Biomedical Engineering

Degree Program Hours: 128

Common Prerequisites

MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Multivariable Calculus
MAP 2302	Differential Equations
EIN 3235	Evaluation of Engineering Data
PHY 2048	Physics I w/ Calc
PHY 2048L	General Physics I Lab
PHY 2049	Physics II w/ Calc
PHY 2049L	General Physics II Lab
CHM 1045	General Chemistry I
CHM 1045L	Gen Chem I Lab
CHM 1046	General Chemistry II
CHM 1046L	Gen Chem II Lab
BSC 1010	General Biology I
BSC 1010L	Gen Biology I Lab
CHM 2210	Organic Chemistry I
CHM 2210L	Organic Chemistry I Lab
CHM 2211	Organic Chemistry II
CHM 2211L	Organic Chemistry II Lab

Lower Division Preparation

Lower division requirements include at least 60 hours of pre-engineering credits (see the Undergraduate Studies portion of this catalog for specific requirements). These courses include the common prerequisites listed above. A minimum grade of "C" is required in all writing courses, and in all of the common prerequisite courses listed above. In addition, a minimum GPA of 2.5 is required for all of the common prerequisite courses listed above.

In addition, all students must meet the University Foreign Language Requirement, must pass the CLAST or have it waived, and must meet all of the state and university requirements for graduation.

Biomedical Engineering Curriculum

The BS curriculum weaves a strong life science foundation with multidisciplinary engineering fundamentals, towards an emphasis, at the advanced stages of the curriculum, of engineering living systems at the tissue, cellular and molecular level.

Life Science Courses

BCH 3033	General Biochemistry	
BCH 3033L	General Biochemistry Lab	

Biomedical Engineering Courses

EGN 1100	Intro to Engineering	2
BME 2740	BME Modeling and Simulation	3
BME 3710	BME Data Evaluation Principles	3
BME 3700	Eng Analysis Biological Systems I	3
BME 3701	Eng Analysis Biological Systems II	3
EEL 3003	Electrical Engineering I	3
EGM 3503	Applied Mechanics	3
BME 3032	BME Transport	3
BME 4011	Clinical Rotations	1
BME 4050L	BME Lab I	1

BME 4051L	BME Lab II	1
BME 4100	Biomaterials Science	3
BME 4332	Cell and Tissue Engineering	3
ELR 4202C	Med Instrument Design	4
BME 4800	Design Biomedical Systems and Devices	3
BME 4090	Design Project Organization	1
BME 4908	Senior Design Project	3
BME 4930	Undergraduate Seminar	0
BME electives (4 courses)		12

Students must maintain a cumulative GPA of at least 2.0 in all Biomedical Engineering courses.

Biomedical Engineering Program Requirements – Freshman to Senior

First Semester (17)

MAC 2311	Calculus I	4
CHM 1045	General Chemisty I	3
CHM 1045L	General Chemistry I Lab	1
ENC 1101	Freshman Composition	3
EGN 1100	Intro to Engineering	2
SLS 1501	Freshman Experience	1
Societies and Identities		3

Second Semester (18)

MAC 2312	Calculus II	4
CHM 1046	General Chemistry II	3
CHM 1046L	Gen Chemistry II Lab	1
PHY 2048	Physics I w/ Calc	3
PHY 2048L	General Physics I Lab	1
ENC 1102	Literary Analysis	3
Art		3

Third Semester (16)

MAC 2313	Multivariable Calculus	4
CHM 2210	Organic Chemistry I	3
CHM 2210L	Organic Chemistry I Lab	1
BSC 1010	General Biology I	3
BSC 1010L	Gen Biology I Lab	1
PHY 2049	Physics II w/ Calc	3
PHY 2049L	Physics II Lab	1

Fourth Semester (16)

MAP 2302	Differential Equations	3
STA 3033	Intro Probability Statistics	3
CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry II Lab	1
BME 2740	BME Modeling & Sim	3
Humanities		3

Fifth Semester (17)

BCH 3033	General Biochemistry	4
BCH 3033L	Gen Biochemistry Lab	1
BME 3710	BME Data Evaluation Principles	3
BME 3700	Eng Analysis Biological Systems I	3
EEL 3003	Electrical Engineering I	3
Foundations of Social Inquiry		3

Sixth Semester (14)

BME 3701	Eng Analysis Biological Systems II	3
EGM 3503	Applied Mechanics	3
ELR 4202C	Medical Inst Design	4
BME 4011	Clinical Rotations	1
BME Elective		3

Seventh Semester (17)

BME 4050L	BME Lab I	1
BME 3032	BME Transport	3
BME 4100	Biomaterials Science	3
BME 4090	Design Project Organization	1
BME 4800	Design Biomedical Systems and Devices	3
BME Elective		3
Humanities/Historical		3

Eighth Semester (13)

BME 4051L	Biomed Lab II	1
BME 4908	Senior Design Project	3
BME 4332	Cell & Tissue Engineering	3
BME Elective		3
BME Elective		3
BME 4930	Undergraduate Seminar	0

Minor in Biomedical Engineering

The minor requires 21 credit hours consisting of the following courses:

BSC 1010	General Biology I	3
BSC 1010L	General Biology I Lab	1
BME 3700	Eng Analysis Biological Systems I	3
BME 3701	Eng Analysis Biological Systems II	3
BME 4011	Clinical Rotations I	1
ELR 4202C	Med Instrumentation Design	4
BME 4800	Design Biomedical Systems and Devices	3
Biomedical Engineering Elective		3

Students majoring in electrical or mechanical engineering may apply the Minor towards a five-year accelerated combined degree program with the Master's degree in biomedical engineering.

Minor in Biomedical Engineering for Non-Engineering Majors

This minor program is designed for students who desire skills in addition to those developed in the basic sciences and is especially intended for biology and chemistry majors.

For admission to the minor, students need (1) To be fully admitted to their major; (2) To have a GPA ≥ 2.5.

To successfully complete the minor, a grade of "C" or better is required in all courses. The minor requires a minimum of 22 credit hours consisting of the following courses:

MAC 2313	Multivariable Calculus
MAP 3202	Differential Equations
BME 3701	Engineering Analysis of Biological Systems II
EGM 3503	Applied Mechanics
BME 3032	BME Transport
2 BME Electives	

Electives: The electives allow for the student to tailor their emphasis of study and must be one of the following two-course sequences:

EEL 3003	Electrical Engineering I
and	
ELR 4202C	Med Instrumentation Design
or	
BME 4100	Biomaterials Science
and	
BME 4332	Cell and Tissue Engineering

Five Year Accelerated Combined BS/MS Degree Programs

This five year program seamlessly combines a baccalaureate degree in biomedical, mechanical, or

electrical engineering with the Master's in biomedical engineering. Students who have completed a minimum of 90 hours towards their BS degree and have earned at least a 3.25 GPA on both overall and upper division courses may, upon recommendation from three BME faculty members, apply to the department to enroll in the combined BS/MS program. Students enrolled in the program may count up to 9 hours as credits for both the undergraduate and graduate degree programs. The BS/MS (3+2) program is designed to be a continuous program. Students in the 3+2 programs will apply for graduation with the BS degree and MS at the same time. Students will receive the BS degree and the MS degree on the same date, after requirements for both are completed. The student's advisor will ensure that the appropriate forms are completed, and that the students do not apply for the BS degree graduation until both BS and MS requirements are fulfilled. Upon completion of the BS degree requirements, student can elect to permanently leave the combined program at any time and earn only the BS degree. Once the BS is granted, the students will have the same access requirements to regular graduate programs as any other student. However, the combined MS degree would not be available to those who elect to leave the combined program.

Admission into the combined program does not automatically qualify the students for admission into the MS degree program. To enroll in the MS degree program, the students must apply (in their senior year) to the graduate school and meet all graduate admission requirements.

Undergraduate students enrolled in the program are encouraged to seek employment with a department faculty member to work as student assistants on sponsored research projects. The student will be eligible for graduate assistantships upon admission into the graduate school.

For each of the courses counted as credits for both the BS and MS degrees, a minimum grade of 'B' is required. Upon completion of the entire 3+2 program, students must have accumulated a minimum of 24 hours of credits at the graduate (5000+) level.

Course Descriptions

Definition of Prefixes

BME-Biomedical Engineering; EEL and ELR-Electrical Engineering; EGM-Engineering Mechanics

BME 2740 Biomedical Engineering Modeling and Simulation (3). Computer modeling of biomedical applications. Extensive use of Matlab and Simulink for modeling and analysis of biomedical phenomena. Prerequisite: BSC 1010. Corequisites: MAP 2302 and EGN 1100.

BME 3032 Biomedical Engineering Transport (3). Basic principles of heat, mass, and fluid transport. Derivation of basic equations, and simplification techniques. Applications to physiological systems, artificial organs, and pharmacokinetics. Prerequisites: CHM 1046, MAP 2302, PHY 2049, BME 2740, EGM 3503.

BME 3700 Engineering Analysis of Biological Systems I (3). A quantitative, model approach to physiological systems at the cellular and tissue level. Thermodynamic, biochemical and biophysical principles of the cell, general system anatomy and functionality. Prerequisites: PHY 2049, BME 2740. Corequisite: BCH 3033.

BME 3701 Engineering Analysis of Biological Systems II (3). Quantitative description of physiological systems at the integrative systems level. Includes engineering analysis relating design to organ function. Prerequisite: BME 3700.

BME 3710 Biomedical Engineering Data Evaluation Principles (3). Design and analysis of clinical and biomedical experiments. Statistical process control and measuring performance relevant to medical device industry. Prerequisite: STA 3033.

BME 4007 Principles of Bioengineering (3). Medical instrumentation and design, regulations for medical devices, application of computers in medicine, biomaterials, biocommunications, artificial implants; clinical engineering. Prerequisite: Permission of the instructor.

BME 4011 Clinical Rotations for Biomedical Engineering (1). Observational and participatory rotations through various divisions and laboratories at BME's clinical partners. Prerequisites: BME 3701 or permission of the instructor. Corequisites: ELR4202C, BME 3701.

BME 4050L Biomedical Engineering Lab I (1). Design, implementation and analysis of biomedical experiments, including biomechanics, tissue mechanics, fluid transport, cardiovascular hemodynamics and materials for artificial organs and implants. Prerequisites: BME 3710, EEL 3003. Corequisites: BME 3032, BME 4100.

BME 4051L Biomedical Engineering Lab II (1). Design, implementation and analysis of biomedical experiments, including bio-signal data acquisition, processing and analysis, mass transport and medical image processing and interpretation. Prerequisites: BME 3710, EEL 3003, BME 3701. Corequisite: BME 3032.

BME 4090 Design Project Organization (1). Organization for capstone project, project feasibility study, proposal writing, oral communications, professional ethics, project management. Prerequisite: ELR 4202C. Corequisite: BME 4800.

BME 4100 Biomaterials Science (3). Materials used in prosthesis for skin and soft tissue, vascular implant devices, bone repair, and artificial joints. Structure-property relationships for biological tissue. Prerequisites: BME 3701, EGM 3503.

BME 4211 Orthopaedic Biomechanics (3). Introduction to the fundamentals of human musculoskeletal physiology and anatomy and computation of mechanical forces as it applies to orthopaedic biomechanics. Prerequisite: BME 4100.

BME 4230 Biomechanics of Cardiovascular Systems (3). Functional cardiovascular physiology and anatomy; analysis and computation of cardiovascular flow; constitutive properties of tissue; coronary and systemic circulation; flow and stress considerations in cardiovascular assist devices. Prerequisites: BME 3032, BME 3701, and BME 4100.

BME 4260 Engineering Hemodynamics (3). Fluid mechanics of the circulatory system, rheology of blood,

lubrication mechanics. Prerequisites: BME 3032, BME 3701.

BME 4311 Molecular Engineering (3). An introductory biochemical engineering course addressing the use of enzyme kinetics, bioreactors, bioseparations and bioprocessing in the biomedical, biopharmaceutical, and biotechnology industries. Prerequisites: BCH 3033, BME 3032.

BME 4332 Cell and Tissue Engineering (3). Physiology of cell growth and in vitro cultivation with basic techniques in biotechnology. Analysis of fundamental processes and engineering approaches on in vitro models for tissue growth. Prerequisites: BME 3032, BME 4100.

BME 4401 Medical Imaging (3). Fundamentals of major imaging modalities including x-ray radiology, x-ray computed tomography, ultrasonography, magnetic resonance imaging, nuclear imaging (PET and SPECT), and optical imaging. Prerequisite: Permission of the instructor.

BME 4562 Introduction to Biomedical Optics (3). Fundamentals of biomedical optics, covering optical spectroscopy, polarimetry, and interferometry. Engineering principles used in optical diagnostics, biosensing and therapeutics. Prerequisite: Permission of the instructor.

BME 4730 Analysis of Self-Regulation and Homeostasis in Biosystems (3). Application of quantitative analysis methods to the study of self regulation processes that result in homeostatic conditions in biosystems with special emphasis on processes found in the human body. Prerequisites: EEL 3003, BME 3701.

BME 4800 Design of Biomedical Systems and Devices (3). Mechanical design and material choices of various biomedical systems and devices such as cardiovascular assist devices, total artificial heart, pulmonary assist devices, total hip prosthesis and other orthopaedic devices. Prerequisites: BME 3710, BME 4011. Corequisite: BME 3032.

BME 4908 Senior Design Project (3). Customer needs; design requirements; biocompatibility; regulatory, ethical, societal, and environmental considerations; creativity; project management; prototype construction and testing; final report and presentation. Prerequisite: BME 4090.

BME 4930 Undergraduate Seminar (0). The course consists of oral presentations made by guests, faculty and students on current topics and research activities in Biomedical Engineering.

BME 4931 BME Special Topics/Projects (1-3). Individual conferences, assigned readings, and reports on independent investigations selected by students and professor with approval of the advisor. Prerequisite: Permission of the instructor.

BME 4949 Biomedical Engineering CO-OP (1-3). Engineering practice in biomedical applications at an industrial partner's site. Intern will be hired through a cooperative agreement to conduct collaborative research with supervision of advisor.

BME 5005 Applied Biomedical Engineering Principles (3). Biomedical engineering applications to instrumentation, transport phenomena, mechanics, materials and imaging. Prerequisite: Permission of the instructor.

BME 5036 Biotransport Processes (3). Transport of fluid, heat, and mass in the human body. Application to dialyzers and heart-lung devices. Prerequisites: BME 3032, BME 4100.

BME 5105 Intermediate Biomaterials Science (3). Materials used in prosthesis for skin and soft tissue, vascular implant devices, bone repair, and artifical joints. Structure-property relationships for biological tissue. Prerequisite: Permission of the instructor.

BME 5340 Introduction to Cardiovascular Engineering (3). Quantitative cardiovascular physiology, engineering applied to cardiovascular system: mechanics, materials, transport, and design.

BME 5350 Radiological Engineering and Clinical Dosimetry (3). Quantities for describing the interaction of radiation fields with biological systems. Absorption of radiant energy by biological systems. Applications to clinical dosimetry and radiation safety procedures. Prerequisite: Permission of the instructor.

BME 5358L Clinical Rotation in Radiation Oncology (3). Practical calibration of radiation therapy instruments, dose calculation and planning of radiation treatment under supervision of certified medical physicist. Prerequisites: BME 5XXX Engineering Foundation of Radiation Therapy and BME 6405C.

BME 5560 Biomedical Engineering Optics (3). Introduction to physical and geometrical optics of biomedical optical devices. Design of optical microscopes, endoscopes, fiber optic delivery systems, spectrometers, fluorometers, and cytometers. Prerequisites: Calculus, Differential Equations, Chemistry, and Physics.

BME 5726 Protein Engineering (3). Cloning, expressing and purifying proteins, and E. coli and yeast expression systems. Design of proteins for specific end uses. Prerequisite: Permission of the instructor.

BME 5731 Analysis of Physiological Control Systems (3). Quantitative analysis methods and modeling of the self-regulation processes that result in homeostatic conditions in physiological systems with special emphasis on processes found in the human body. Prerequisites: Permission of the instructor, EEL 3003, BME 3701.

BME 5941 Biomedical Engineering Internship (1-3). Engineering practice in biomedical applications at an industrial partner's site. Intern will be hired through cooperative agreement to conduct collaborative research with supervision of advisor.

EEL 4510 Introduction to Digital Signal Processing (3). Z transform and digital filters. Design of digital filters. Effects of finite register length in digital filters. Engineering applications of digital filters. Prerequisites: EEL 3514 or permission of the instructor. Corequisites: EEL 4314 or permission of the instructor.

EEL 5071 Bioelectrical Models (3). Engineering models for electrical behavior of nerve and muscle cells, electrode-tissue junctions, volume conductions in tissue

and the nervous system as an electrical network. Prerequisites: ELR 4202 or permission of the instructor.

EEL 5085 Bioradiation Engineering (3). Spectrum of radiation sources, types of fields, properties of living tissue, mechanisms of field propagation in tissue. Applications in imaging and therapy, hazards and safety. Prerequisites: EEL 4410 or permission of the instructor.

EEL 5820 Digital Image Processing (3). Image Fundamentals, Image Transforms, Image Enhancement, Edge Detection, Image Segmentation, Texture Analysis, Image Restoration, and Image Compression. Prerequisites: EEL 3135 and knowledge of any programming language (FORTRAN, Pascal, C). (F)

ELR 4202C Medical Instrumentation Design (4). Concepts of transducers and instrumentation systems; origins of biopotentials; electrical safety; therapeutic and prosthetic devices. Prerequisites: EEL 3003 or EEL 3110 or EEL 3111.

Civil and Environmental Engineering

Amir Mirmiran, Ph.D., P.E., *Professor, Chair*
Caesar Abi Shdid, Ph.D., *Instructor, Undergraduate Advisor, Director of CT3*
Arindam Gan Chowdhury, Ph.D., *Assistant Professor, Director, Laboratory for Wind Engineering Research*
Hector R. Fuentes, Ph.D., P.E., D.E.E., *Professor*
Albert Gan, Ph.D., *Associate Professor*
Mohammed Hadi, Ph.D., P.E., *Assistant Professor*
Sylvan C. Jolibois, Jr., Ph.D., *Associate Professor*
Shonali Laha, Ph.D., P.E., *Associate Professor*
Fernando Miralles-Wilhelm, Ph.D., P.E., *Associate Professor*
Luis A. Prieto-Portar, Ph.D., P.E., *Professor*
Wolfgang F. Rogge, Ph.D., P.E., *Associate Professor*
L. David Shen, Ph.D., P.E., T.E., *Professor, Associate Dean*
Nakin Suksawang, Ph.D., *Assistant Professor*
Walter Z. Tang, Ph.D., P.E., *Associate Professor*
Berrin Tansel, Ph.D., P.E., *Associate Professor*
LeRoy E. Thompson, Ph.D., P.E., *Professor Emeritus*
Ton-Lo Wang, Ph.D., P.E., *Professor, Undergraduate Program Director*
Fang Zhao, Ph.D., P.E., *Professor, Graduate Program Director*

Lehman Center for Transportation Research

L. David Shen, Ph.D., P.E., T.E., *Professor, Director*

Bachelor of Science in Civil Engineering

Common Prerequisites

CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
CHM 1046	General Chemistry II
CHM 1046L	General Chemistry Lab II
MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Multivariable Calculus
MAP 2302	Differential Equations
PHY 2048	Physics with Calculus
PHY 2048L	General Physics Lab I
PHY 2049	Physics with Calculus II
EGN 3311	Statics
EGN 3321	Dynamics
STA 3311	Statistics
or	
EIN 3235	Evaluation of Engineering Data

Degree Program Hours: Minimum 128

The Civil Engineering curriculum provides a program of interrelated technical areas of Civil Engineering with their fundamental core subjects of the engineering program. The technical interdisciplinary courses are in the areas of construction, geotechnical, environmental, structural, surveying, transportation, and water resources engineering.

Civil engineers play an essential role in serving people and the environmental needs of society. These needs relate to shelter, mobility, water, air and development of land and physical facilities.

The academic program is designed to meet the State of Florida's articulation policy as well as to satisfy criteria outlined by the Accreditation Board for Engineering and Technology (ABET), among others.

Lower Division Preparation

To qualify for admission to the upper division program, FIU undergraduates must have met all the lower division requirements (see the Undergraduate Studies portion of this catalog for specific requirements) including completion of at least 60 semester hours of pre-engineering courses which include 'C' for Engineers or Computer Tools for CE, Calculus I & II, Multivariable Calculus, Probability and Statistics, or Evaluation of Engineering Data, Differential Equations, Chemistry I & II and Labs, Physics I with Calculus and Lab, Physics II with Calculus with a grade of 'C' or better and must be otherwise acceptable into the program. See the example semester by semester program in the following pages.

Effective pursuit of engineering studies requires careful attention to both the sequence and the type of courses taken. It is therefore important, and the college requires, that each student plan a curriculum with the departmental faculty advisor.

All students must comply with the University Core Curriculum Requirements for the University as well as comply with departmental requirements for Social Science, Humanities, and English. Students may find that some courses satisfy both requirements; therefore, it is important to contact the department advisor for assistance. The department requires a minimum of 15 semester hours in the area of Humanities and Social Science. The student should refer to the semester by semester program for a list of approved courses. Requirements also include Engineering Drawing with CAD application (unless previously taken), Engineering Economy and Ethics and Legal Aspects. All transfer students should refer to the General Information section of this catalog to determine if they have met the requirements for Humanities, Social Science, and English at their previous institution. Students who transfer from a State of Florida community college with an Associate of Arts degree must fulfill departmental requirements for Social Science and Humanities.

A minimum grade of 'C' is required in all writing, physics, chemistry and mathematics courses.

A minimum grade of 'C' is required of all Civil Engineering courses and prerequisite courses.

Students who have been dismissed for the first time from the University due to low grade, may appeal to the Dean for reinstatement. A second dismissal will result in no possibility of reinstatement.

Other Requirements

Students must pass the CLAST or have it waived, must have a minimum 2.0 GPA, must complete all required classes, and must otherwise meet all of the state and university requirements in order to graduate.

Students who enter the university with fewer than 60 transferred credits must take 9 summer credits. Refer to the appropriate sections in the Catalog's for more information.

Courses are to be taken in the proper sequence. Any course taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a 'DR' or 'DF'.

Upper Division Course Objectives

The program of study encourages the development of a broadly educated civil engineering graduate, who can succeed as a productive engineer with a continued professional growth. The courses listed as requirements for the BS degree not only provide the students with mathematical and scientific knowledge, but also include other essentials areas necessary for a successful engineering career. The courses have been designed to increase student competence in written and oral communication skills as well as develop critical thinking and creative problem solving strategies. Course projects are designed to teach engineering science fundamentals and their applications while providing enriching opportunities for laboratory and computer-based experiences. Furthermore, students are supplied with an understanding of the economic, social, ethical and professional responsibilities of engineers in our society and are encouraged to include sustainable development in all project designs.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admission and Registration and Records.

Upper Division Program

The basic upper division requirements for the BSCE degree are as follows:

ENG 1110C	Engineering Drawing (Required unless previously taken)	3

Engineering Sciences (20)

CGN 2420	Computer Tools for CE	3
CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Laboratory	1
EEL 3003	Electrical Engineering I *(Non EE)*	3
EGM 3520	Engineering Mechanics of Materials	3
EGM 3520L	Materials Testing Lab	1
EGN 3311	Statics	3
EGN 3321	Dynamics	3

Civil Engineering Curriculum (44)

CCE 4031	Project Planning for CE	3
CEG 4011	Geotechnical Engineering I	3
CEG 4011L	Soil Testing Laboratory	1
CES 3100	Structural Analysis	3
CES 4702	Reinforced Concrete Design	3
CGN 4802	Civil Engineering Senior Design Project	3
CWR 3103	Water Resources Engineering	3
ENV 3001	Introduction to Environmental Engineering	3
ENV 3001L	Environmental Laboratory I	1
SUR 2101C	Surveying	3
TTE 4201	Transportation and Traffic Engineering	3
C.E. Elective	(min)	3
C.E. Elective	(min)	3
C.E. Elective	(min)	3
C.E. Elective	(min)	3
C.E. Elective	(min)	3

Note: Students may be eligible to select some graduate level civil engineering technical electives as approved by the instructor and the undergraduate advisor.

Combined BS/MS Program

Students who pursue a BS degree and are in their senior year and have at least a 3.3 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS/MS program upon recommendation from three CEE faculty members. Students must also submit an on-line application to the University Graduate School for admission to the MS program. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of both the department and the University Graduate School.

Students enrolled in the program may count up to nine credit hours of CEE graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. However, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have up to one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the nine credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of B is required. All double counted courses must be at 5000 level or higher. Students enrolled in the program may count up to nine credit hours of CEE graduate courses toward the elective engineering BS requirements as well as toward the MS degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the Undergraduate Advisor.

· Students interested in the program should consult with the Undergraduate Advisor on their eligibility for the program. The students should also meet the Graduate Program Director to learn about the graduate program and available courses before completing the application form and submitting it to the Undergraduate Advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Undergraduate students enrolled in the program are encouraged to seek employment with a department faculty to work as student assistants on sponsored research projects. The students will be eligible for graduate assistantships upon admission into the graduate school.

Combined BS/MBA Program

Students, who pursue a BS degree and are in their first semester of the senior year, with at least a 3.3 GPA on both overall and upper division courses may, upon recommendation from three CEE faculty members, apply to the department to enroll in the combined BS/MBA program. Students must also submit an on-line application to the University Graduate School for admission to the MBA program. In addition to the admission requirements of the University Graduate School and those of the College of Business Administration.

The MBA curriculum at the Chapman Graduate School of business consists of 9 credit hours of pre-core courses, 31 credit hours of core courses, 3 credit hours of

professional development seminars, and 12 credit hours of elective courses, for a total of 55 credit hours.

The pre-core of 9 credit hours may be considered for waiver based on prior course work or exemption exams. An evaluation will be conducted at the time of admission to determine eligibility for a waiver by the MBA program graduate advisor.

In addition, students can count up to three CEE graduate courses as credits for both the BS electives and the MBA electives, for a total savings of 9 credit hours. The following is a list of eligible CEE graduate courses:

CCE 5035	Construction Engineering Management
CCE 5036	Advanced Project Planning for Civil Engineers
CCE 5505	Computer Integrated Construction Engineering
CCE 5405	Advanced Heavy Construction Techniques
CGN 5315	Civil Engineering Systems
CGN 5320	GIS Applications in Civil and Environmental Engineering
CGN 5930	Special Topics*
ENV 5007	Environmental Planning
ENV 5008	Appropriate Technology for Developing Countries
ENV 5105	Air Quality Management
ENV 5659	Regional Planning Engineering
ENV 5666	Water Quality Management
ENV 5905	Independent Study*
ENV 5930	Special Topics in Environmental Engineering*
TTE 5007	Transportation Systems in Developing Nations
TTE 5015	Fundamentals of Traffic Engineering
TTE 5100	Transportation and Growth Management
TTE 5606	Transportation Systems Modeling and Analysis
URP 5312	Urban Land Use Planning
URP 5316	Environmental and Urban Systems

*These courses should have management, decision making and/or cost estimating components.

The combined BS/MBA program has been designed to be a continuous program. During this combined BS/MBA program, upon completion of all requirements of the undergraduate program, students will receive their BS degrees. Students may also elect to permanently leave the combined program at any time and earn only the BS degree. Students who elect to leave the combined program and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the 9 credits in both the BS and MBA degrees.

For each of the graduate courses counted as credits for both BS and MBA degrees, a minumum grade of "B" is required. Students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the MBA graduate program advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Final decision for admission to the MBA program will be made by the University Graduate School upon recommendation by the College of Business Administration. Applicants will be notified by the department and the University Graduate School og the decision on their applications.

Professional Graduation Requirement

Students must take and pass CGN 4930 (FE Seminar) or show evidence of passing the state FE (EIT) examination to fully fulfill departmental graduation requirements.

Civil Engineering Program

Students may have a different sequence of courses as arranged with their advisor. For a complete program information, students should refer to the Program Summary Sheet available at the Department.

First Semester: (13)

MAC 2311	Calculus I	4
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
SLS 1501	Freshman Experience	1
ENC 1101	Freshman Composition	3
EGN 2030	Ethics & Legal Issues	1

Second Semester: (15)

MAC 2312	Calculus II	4
ENC 1102	Literary Analysis	3
PHY 2048	Physics with Calculus	4
PHY 2048L	General Physics Lab I	1
EGN 1033	Technology, Humans, and Society	3

Third Semester: (14)

ECO 2013	Macroeconomics	3
or		
ECO 2023	Microeconomics	3
MAC 2313	Multivariable Calculus	4
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
EGN 1110C	Engineering Drawing *(Required unless previously taken)*	3

Fourth Semester: (16)

PHY 2049	Physics with Calculus II	4
MAP 2302	Differential Equations	3
CGN 2420	Computer Tools for CE	3
SPC 2600	Public Speaking	3
	or	
CRW 2001	Creative Writing	3
Humanities with Writing*		3

Fifth Semester: (12)

EGN 3311	Statics	3
EEL 3003	Electrical Engineering I	3
SUR 2101C	Surveying	3
Humanities with Writing II*		3

Sixth Semester: (13)

STA 3033	Introduction to Probability and Statistics for CS	3
	or	
EIN 3235	Evaluation of Engineering Data	3
EGN 3321	Dynamics	3
EGM 3520	Engineering Mechanics of Materials	3
EGM 3520L	Engineering Mechanics of Material Lab	1
ENC 3211	Technical Writing	3

Seventh Semester: (14)

CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Lab	1
CES 3100	Structural Analysis	3

ENV 3001	Introduction to Environmental Engineering	3
ENV 3001L	Environmental Laboratory I	1
EIN 3354	Engineering Economy	3

Eighth Semester: (16)

CEG 4011	Geotechnical Engineering I	3
CEG 4011L	Soil Testing Laboratory	1
CCE 4031	Project Planning for Civil Engineers	3
TTE 4201	Transportation & Traffic Engineering	3
CE Elective		3
CE Elective		3

Ninth Semester: (18)

CWR 3101	Water Resources	3
CES 4702	Reinforced Concrete Design	3
CGN 4802	Civil Engineering Senior Design Project	3
CE Elective		3
CE Elective		3
CE Elective		3

Student are required to either complete the CGN 4980 CE Seminar course or pass the FE exam

***Humanities with Writing:** (6)

Choose 2 courses from the following: At least 1 of the courses must have a history component.

PHI 2600	Introduction to Ethics	3
ARC 2701	History of Architecture	3
HUM 3306	History of Ideas	3
WOH 2001	World Civilization	3
EUH 2030	Western Civ. Europe in the Modern Era	3
AMH 2002	Modern American Civilization	3

Suggested Electives *(other electives may be chosen, as approved by Department Advisor):*

CEG 4012	Geotechnical Engineering II	4
CCE 4001	Heavy Construction	3
CGN 4321	GIS Application in Civil and Environmental Engineering	3
TTE 4804	Geometric Design of Highways	3
TTE 4203	Highway Capacity Analysis	3
CES 4320	Intro to the Design of Highway Bridges	3
CES 4600	Intro to the Design of Tall Buildings	3
CES 4605	Steel Design	3
CES 4126	Fundamentals of Pavement Design	3
ENV 4930	Special Topics in Civil Engineering	1-4

Electives for Environmental Engineering Option

ENV 4101	Elements of Atmospheric Pollution	3
ENV 4330	Hazardous Waste Assessment and Remediation	3
ENV 4351	Solid Waste Management	3
ENV 4401	Water Supply Engineering	4
ENV 4551	Sewerage and Wastewater Treatment	4
ENV 4560	Reactor Design	3
ENV 4513	Chemistry for Environmental Engineers	3
ENV 4024	Bioremediation	3
ENV 4930	Special Topics in Environmental Engineering	1-4

Electives for Construction Engineering Option

CCE 4001	Heavy Construction	3
CCE 5035	Construction Engineering Management	3
CCE 5505	Computer integrated Construction Engineering	3
CCE 5405	Advanced Heavy Construction Techniques	3
CGN 4321	GIS Applications in Civil & Environmental Engineering	3

Note: Required credits towards graduation are 128 credit hours. Due to variation in the number of transfer credits awarded, technical electives
may be required. Technical electives must be approved by the Advisor.

Bachelor of Science in Environmental Engineering

Common Prerequisites

CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Multivariable Calculus
MAP 2302	Differential Equations
PHY 2048	Physics with Calculus
PHY 2048L	General Physics Lab I
PHY 2049	Physics with Calculus II

Degree Program Hours: 126

The Environmental Engineering curriculum provides a background of interrelated subdisciplines of Environmental Engineering and related science subjects with the fundamental core subjects of the engineering program. The technical interdisciplinary courses are in the areas of biology, geology, chemistry, ecology, atmospheric sciences, geotechnical engineering, urban planning, water resources engineering, pollution prevention and waste management. Environmental engineers play an essential role in serving people and the environmental needs of society. These needs relate to water, air and development of land and physical facilities.

The academic program is designed to meet the State of Florida's articulation policy as well as to satisfy criteria outlined by the Accreditation Board for Engineering and Technology (ABET).

Lower Division Preparation

The lower division requirements include at least 60 semester hours of pre-engineering courses (as specified in the Undergraduate Studies portion of the University catalog) which include the common prerequisites listed above. A minimum grade of "C" is required in all writing courses, and in of the common prerequisite courses listed above.

All students must comply with the University Core Curriculum Requirements for the University as well as comply with departmental requirements for Social Science, Humanities, and English. Students may find that some courses satisfy both requirements; therefore it is important to contact the department advisor for assistance. The department requires a minimum of 15 semester hours in the area of Humanities and Social Science.

In addition, all students must meet the University Foreign Language Requirement, must pass the CLAST or have it waived, must meet all of the state and university requirements for graduation.

Upper Division Program

The upper division program of study encourages the development of a broadly educated environmental engineering graduate, who can succeed as a productive engineer with a continued professional growth. The courses listed as requirements for the BS degree not only

provide the students with mathematical and scientific knowledge, but also include other essentials necessary for a successful engineer career. The courses have been designed to increase student competence in written and oral communication skills as well as develop critical thinking and creative problem solving strategies. Course projects are designed to teach engineering science fundamentals and their applications while providing enriching opportunities for laboratory and computer-based experiences. Furthermore, students are supplied with an understanding of the economic, social and ethical responsibilities of engineers in our society and are encouraged to include sustainable development in all project designs.

Engineering Sciences (24)

Science Elective (Biological Science)**		4
Science Elective (Earth Science)**		4
EGN 3311	Statics	3
EGN 3321	Dynamics	3
EGN 3343	Thermodynamics I	3
CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Lab	1
EEL 3003	Electrical Engineering	3

Environmental Engineering Curriculum (35)

CWR 3103	Water Resources Engineering	3
ENV 3001	Introduction to Environmental Engineering	3
ENV 3001L	Environmental Laboratory I	1
ENV 4005L	Environmental Laboratory II	1
ENV 4513	Chemistry for Environmental Engineers	3
ENV 4351	Solid Waste Management	3
ENV 4101	Elements of Atmospheric Pollution	3
ENV 4401	Water Supply Engineering	3
ENV 4551	Sewerage and Wastewater Treatment	3
ENV 4330	Hazardous Assessment and Remediation	3
ENV 4891	Environmental Eng. Senior Design Project	3
ENV Technical Elective		3
ENV Technical Elective		3

Course & Credit Hours Listing

The curriculum includes a sequence of courses which complies with the ABET requirements for mathematics and basic sciences, engineering science, engineering design, and general engineering degree requirements including humanities and social sciences. A typical nine semester sequence is shown below. Students may complete the program, by specific selection of science and technical elective courses, as arranged with the undergraduate program advisor and based on personal interests in a specialization area.

First Semester: (13)

MAC 2311	Calculus I	4
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
SLS 1501	Freshman Experience	1
ENC 1101	Freshman Composition	3
EGN 2030	Ethics & Legal Aspects in Engineering	1

Second Semester: (19)

MAC 2312	Calculus II	4
ENC 1102	Literary Analysis	3
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Laboratory I	1
EGN 1110C	Engineering Drawing*	3
BSC 1010	General Biology I	3
BSC 1010L	General Biology Lab I	1

Third Semester (Suggested Summer Term): (11)

Foundations of Social Inquiry***		3
MAC 2313	Multivariable Calculus	4
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1

Fourth Semester: (13)

PHY 2049	Physics with Calculus II	4
MAP 2302	Differential Equations	3
Humanities (with writing)		3
Societies and Identities		3

Fifth Semester: (14)

ENV 3001	Introduction to Environmental Engineering	3
ENV 3001L	Environmental Laboratory I	1
EGN 3311	Statics	3
Science Elective (Earth Science)**		4
STA 3033	Introduction to Probability and Statistics for CS or equivalent	3

Sixth Semester: (15)

EGN 3343	Thermodynamics I	3
EGN 3321	Dynamics	3
EIN 3354	Engineering Economy	3
ENV 4513	Chemistry for Environmental Engineers	3
Art		3

Seventh Semester: (17)

CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Lab	1
EEL 3003	Electrical Engineering	3
ENV 4351	Solid Waste Management	3
Science Elective (Biological Science)**		4
Humanities/Historical		3

Eighth Semester: (13)

ENV 4101	Elements of Atmospheric Pollution	3
ENV 4401	Water Supply Engineering	3
ENV 4551	Sewerage and Wastewater Treatment	3
ENV 4005L	Environmental Laboratory II	1
CWR 3103	Water Resources Engineering	3

Ninth Semester: (12)

ENV 4330	Hazardous Assessment and Remediation	3
ENV 4891	Environmental Engineering Senior Design Project	3
ENV Technical Elective		3
ENV Technical Elective		3

*Required unless previously taken

**One Science Elective should be in Earth Sciences and the other should be in Biological Sciences. Electives must be selected from the following:

Earth Science electives: (one required)

GLY 2072/L	Earth Climate and Global Change	4
GLY 3039/L	Environmental Geology	4
GLY 3202/L	Earth Materials	4
GLY 4822/L	Hydrogeology	4
MET 2010/L	Meteorology & Atmospheric Physics	4

Biological Science electives (one required):

MCB 2000/L	Introductory Microbiology	4
OCB 2003/L	Introductory Marine Biology	4
PCB 3043/L	Ecology	4
EVR 3013/L	Ecology of South Florida	4

***These Social Science elective must be selected from the following:

ECO 2013 Principles of Macroeconomics	3
ECO 2023 Principles of Microeconomics	3

****ENV technical electives must be selected from the following:

CEG 4011 Geotechnical Engineering	3
CGN 4321 GIS Applications in Civil Environmental Engineering	3
CWR 5235 Open Channel Hydraulics	3
CWR 5251 Environmental Hydraulics	3
ENV 4560 Reactor Design	3
ENV 4024 Bioremediation Engineering	3
ENV 4930 Special Topics in Environmental Engineering	3
ENV 5002C Fundamentals for Environmental Engineering	3
ENV 5126 Particulate Air Pollution Control	3
ENV 5127 Gaseous Air Pollution Control	3
ENV 5104 Indoor Air Quality	3
ENV 5666 Water Quality Management	3
EVR 3010 Energy Flow in Natural and Man-made Systems	
EVR 4321 Sustainable Resource Development	3
EVR 4592 Soils and Ecosystems	3
EVR 4026 Ecology of Biotic Resources	3
EVR 4323 Restoration Ecology	3
PHC 5409 Public Health Behavior Change Theory and Practice	3
PHC 5415 Public Health in Minority/Urban Population	3

All recommended and other technical electives must be approved by the advisor and must concentrate on relevant applications of environmental engineering design. Selection of a proper sequence would allow the student to specialize within a focus area of interest (e.g., air, water, or land resources).

Course Descriptions

Definition of Prefixes

CCE-Civil Construction Engineering; CEG-Engineering, General; CES-Civil Engineering Structures; CGN-Civil Engineering; CWR-Civil Water Resources; EGM-Engineering, Mechanics; EGN-Engineering, General; ENV-Engineering, Environmental; SUR-Surveying and Related Areas; TTE-Transportation and Traffic Engineering

CCE 4001 Heavy Construction (3). Contractor's organization, contracts, services, safety, planning and scheduling. Equipment and their economics. Special project applications, coffer-dams, dewatering, river diversions, tunnelling. Prerequisite: Permission of the instructor.

CCE 4031 Project Planning for Civil Engineers (3). Introduction to techniques for planning activities, operations, finance, budget, workforce, quality, safety. Utilize case studies as learning tools for students aspiring to superintendent positions. Prerequisite: Permission of the instructor.

CCE 5035 Construction Engineering Management (3). Course will cover construction organization, planning and implementation; impact and feasibility studies; contractual subjects; liability and performance; the responsibility of owner, contractor and engineer. Prerequisite: Permission of the instructor.

CCE 5036 Advanced Project Planning for Civil Engineers (3). Advanced techniques and methods for planning activities, operations, finance, budget, workforce, quality, safety. Utilize case studies as learning tools for students aspiring to management positions. Prerequisite: CCE 4031 or equivalent.

CCE 5505 Computer Integrated Construction Engineering (3). Course covers the discussion of available software related to construction engineering topics; knowledge based expert systems and their relevance to construction engineering planning and management. Prerequisite: CCE 4031 or equivalent.

CCE 5405 Advanced Heavy Construction Techniques (3). Heavy construction methods and procedures involved in large construction projects such as bridges, cofferdams, tunnels, and other structures. Selection of equipment based on productivity and economics. Prerequisite: Permission of instructor.

CEG 4011 Geotechnical Engineering I (3). Engineering geology, soil properties; stresses in soils; failures; criteria; consolidation and settlement; compaction, soil improvement and slope stabilization. Prerequisites: CWR 3201 and L, EGM 3520, and L, CHM 1046 and PHY 2049.

CEG 4011L Soil Testing Laboratory (1). Laboratory experiments to identify and test behavior of soils and rocks. Prerequisites: CWR 3201, CWR 3201L, EGM 3520L, EGM 3520. Corequisite: CEG 4011. (Lab fees assessed).

CEG 4012 Geotechnical Engineering II (4). Principles of foundation analysis and design: site improvement for bearing and settlement, spread footings, mat foundations, retaining walls, cofferdams, piles, shafts, caissons, tunnels, and vibration control. Computer applications. Prerequisites: CEG 4011 and L.

CEG 4126 Fundamentals of Pavement Design (3). This course is designed to provide the student with a basic understanding of the fundamental principles underlying pavement structural analysis and design. Asphalt Institute, Portland Cement Association and AASHTO methods will be covered. Prerequisites: CEG 4011, CEG 4011L, TTE 4201.

CES 3100 Structural Analysis (3). To introduce the student to the basic concepts and principles of structural theory relating to statically determinate beams, arches, trusses and rigid frames, including deflection techniques. Prerequisite: EGM 3520.

CES 4320 Introduction to the Design of Highway Bridges (3). The course covers the different types of modern highway bridges, and systematically analyzes all the components of the superstructures. Design procedures are based on AASHTO codes and specialized software. Prerequisites: CEG 4011, CES 4702.

CES 4600 Introduction to the Design of Tall Buildings (3). The course reviews the different modern high-rise structural systems, a simple analysis of wind and seismic loading to effeiciently design very tall buildings. Prerequisites: CEG 4011, CES 4702.

CES 4605 Steel Design (3). The analysis and design of structural elements and connections for buildings, bridges, and specialized structures utilizing structural steel. Both

elastic and plastic designs are considered. Prerequisite: CES 3100.

CES 4702 Reinforced Concrete Design (3). The analysis and design of reinforced concrete beams, columns, slabs, retaining walls and footings; with emphasis corresponding to present ACI Building Code. Introduction to prestressed concrete is given. Prerequisite: CES 3100 with a grade of 'C' or better.

CES 5587 Topics in Wind Engineering (3). The course will cover the nature of wind related to wind-structure interaction and design loads for extreme winds, tornadoes and hurricanes. Prerequisites: CES 3100 and CWR 3201.

CGN 2420 Computer Tools for Civil Engineers (3). Introduction to common civil engineering software such as MathCad, VBA, and others. Prerequisites: EGN 1110C or equivalent.

CGN 3949 Co-Op Work Experience (1-3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and reports required.

CGN 4321 GIS Applications in Civil and Environmental Engineering (3). Introduction to the basics of geographic information systems and their applications in civil and environmental engineering, landscape architecture, and other related fields. Prerequisites: TTE 4201 or ENV 3001 or CWR 3103 or the equivalents.

CGN 4802 Civil Engineering Senior Design Project (3). Mandatory course for all senior students, to experience the design of a practical project by utilizing knowledge learned from previous courses for presenting a solution. Done under the supervision of a faculty member and professional engineer. Prerequisites: CEG 4011, CEG 4011L, TTE 4201, CES 4702.

CGN 4911 Undergraduate Research Experience (1-3). Participate in research activities in the areas of structures, geotechnical, transportation, construction and environmental engineering. Prerequisite: Permission of a faculty advisor.

CGN 4930 Special Topics in Civil Engineering (1-4). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CGN 4949 Co-Op Work Experience (1-3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and report required.

CGN 4980 Civil Engineering Seminar (1). Basic principles and applications of civil engineering, including structural, transportation, environmental, geotechnical, construction, and water resources engineering for civil engineering students. Prerequisite: Permission from undergraduate advisor.

CWR 3103 Water Resources Engineering (3). Hydrologic and hydraulic engineering fundamentals: hydrologic cycle, hyetographs, hydrographs, frequency analysis, pipe systems, turbomachinery, open channels, structures, and groundwater. Prerequisites: CWR 3201, CWR 3201L, STA 3033 or EIN 3235.

CWR 3201 Fluid Mechanics (3). A study of the properties of fluids and their behavior at rest and in motion. Continuity, momentum, and energy principles of fluid flow. Prerequisite: EGN 3321. Corequisite: CWR 3201L.

CWR 3201L Fluid Mechanics Laboratory (1). Application of fluid mechanics principles in the laboratory. Experiments in surface water, ground-water and pipe flow. Corequisite: CWR 3201. (Lab fees assessed).

CWR 4530 Modeling Applications in Water Resources Engineering (3). Model applications in hydrology, hydraulics, hydrosystems engineering and environmental interconnections. Prerequisite: CWR 3201. Corequisite: CWR 3103.

CWR 5140C Ecohydrology (3). Hydrology of ecosystems, interaction between the hydrologic cycle and vegetative processes. Prerequisite: Permission of the instructor.

CWR 5535C Advanced Modeling Applications in Water Resources Engineering (3). Complex model applications in hydrology, hydraulics, hydrosystems engineering and environmental interconnections. Prerequisite: Permission of the instructor.

EGM 3520 Engineering Mechanics of Materials (3). Analysis of axial, torsional, bending, combined stresses, and strains. Plotting of shear, moment and deflection diagram with calculus applications and interpretations. Prerequisites: CGN 2420, MAC 2313, MAP 2302 and EGN 3311 with a grade of 'C' or better.

EGM 3520L Materials Testing Laboratory (1). Introduction to measurements of basic mechanical properties of materials. Experiments include axial tension, compression, torsion, flexure, and the response of simple structural elements. Prerequisites or Corequisites: EGM 3520, MAC 2312 and EGN 3311. (Lab fees assessed).

EGN 1110C Engineering Drawing (3). Introduction to elementary design concepts in engineering, principles of drawing, descriptive geometry, pictorials and perspectives and their computer graphics counterpart.

EGN 2030 Ethics and Legal Aspects in Engineering (1). Codes of ethics, professional responsibilities and rights, law and engineering, contracts, torts, evidence.

EGN 3311 Statics (3). Forces on particles, equilibrium of forces, moments, couples, centroids, section properties, and load analysis of structures. Prerequisites: MAC 2312 and PHY 2048.

ENV 3001 Introduction to Environmental Engineering (3). Introduction to environmental engineering problems; water and wastewater treatment, air pollution, noise, solid and hazardous wastes. Prerequisites: CHM 1046 and CHM 1046L, MAC 2312 and permission of undergraduate advisor. Corequisite: ENV 3001L.

ENV 3001L Environmental Laboratory I (1). A corequisite to ENV 3001. Practical applications of the theory learned in the course and experience in detecting and measuring some environmental problems. Prerequisites: CHM 1046 and CHM 1046L, MAC 2312 and permission of undergraduate advisor. Corequisite: ENV 3001. (Lab fees assessed).

ENV 3949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor.

ENV 4005L Environmental Laboratory II (1). Laboratory experiments on applications of environmental engineering concepts related with air, water, land and environmental health involving data collection, analysis and interpretation. Prerequisites: ENV 3001L, CWR 3201L, and permission of the instructor.

ENV 4024 Bioremediation Engineering (3). Biotransformation of sub-surface contaminants in gaining recognition as a viable treatment tool. This course provides students with quantitative methods required to design bioremediation systems. Prerequisites: ENV 3001 and ENV 3001L.

ENV 4101 Elements of Atmospheric Pollution (3). The air pollution problem, causes, sources, and effects. Historical development. Physical, political, and economic factors in its control. Prerequisites: CWR 3201 and CWR 3201L or EML 3126 and 3126L, ENV 3001 and ENV 3001L.

ENV 4330 Hazardous Waste Assessment and Remediation (3). Generation, transport, treatment and disposal of hazardous waste; risk assessment and treatment of contaminated media. Prerequisite: One year of General Chemistry.

ENV 4351 Solid Waste Management (3). Sources, amounts and characteristics of solid wastes; municipal collection systems; method of disposal; energetic consideration in the recovery and recycle of wastes. Prerequisites: PHY 2049, and CHM 1046 and CHM 1046L.

ENV 4401 Water Supply Engineering (3). Quantity, quality, treatment, and distribution of drinking water. Prerequisites: CWR 3201 and CWR 3201L, ENV 3001 and ENV 3001L. Corequisite: ENV 4401L.

ENV 4401L Water Laboratory (1). Laboratory exercises in the physical, chemical, and bacteriological quality of potable water. Prerequisites: CWR 3201, ENV 3001 and ENV 3001L. Corequisite: ENV 4401. (Lab fees assessed).

ENV 4513 Chemistry for Environmental Engineers (3). A practical basis for applying microbial and physicochemical principles to understand reactions occurring in natural and engineered systems including water/wastewater treatment processes. Prerequisite: Permission of the instructor.

ENV 4551 Sewerage and Wastewater Treatment (3). Collection and transportation of wastewater, design of sanitary and storm sewers. Physical, chemical, and biological principles of wastewater treatment. Prerequisites: CWR 3201 and CWR 3201L, ENV 3001 and ENV 3001L. Corequisite: 4551L.

ENV 4551L Wastewater Laboratory (1). Laboratory exercises in the physical, chemical, and bacteriological quality of raw and treated wastewaters. Prerequisites: CWR 3201 and CRW 3201L, ENV 3001 and ENV 3001L, Corequisite: ENV 4551. (Lab fees assessed).

ENV 4560 Reactor Design (3). A theoretical and practical basis for reaction kinetics to understand multi-phase reactions, analysis and design of batch and continuous flow reactors.

ENV 4891 Environmental Engineering Senior Design Project (3). Team design project involving applications of fundamental environmental engineering concepts to project design, specifications, contracts and implementation. Emphasis on written and oral communication. Prerequisites: ENV 4401, ENV 4551, and CWR 3103.

ENV 4910 Undergraduate Research Experience (1-3). Participate in research activities in the areas of air, land and water systems and associated environmental health impacts. Prerequisites: Permission of a faculty advisor.

ENV 4930 Special Topics in Environmental Engineering (1-4). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

ENV 4949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and reports required.

SUR 2101C Surveying (3). Computations and field procedures associated with the measurement of distances and angles using tape, level, transit, EDMs, and total station. Laboratory is included with field measurements. Prerequisite: EGN 1110C.

TTE 4201 Transportation and Traffic Engineering (3). Transportation characteristics; transportation planning, traffic control devices, intersection design, network design, research. Prerequisites: STA 3033 or EIN 3235 and SUR 2101C.

TTE 4203 Highway Capacity Analysis (3). Procedures involved in the capacity analysis of interrupted and uninterrupted flow highway facilities. Applications of highway capacity analysis software. Prerequisites: TTE 4201 or permission of instructor.

TTE 4804 Geometric Design of Highways (3). Parameters governing geometric design of highways; curve superelevation, widening of highway curves, intersection design; highway interchanges, use of AASHTO design guidelines. Prerequisite: TTE 4201.

TTE 4930C Transportation Seminar (1-3). Oral presentations made by students, guests, and faculty members on current topics and research activities in traffic and transportation engineering. Prerequisite: TTE 4201.

Construction Management

Irtishad U. Ahmad, Ph.D., P.E., *Professor and Chairperson*
Syed M. Ahmed, Ph.D., *Associate Professor and Graduate Program Director*
Ronald A. Baier, P.E., *Instructor and Undergraduate Advisor*
Mehmet Emre Bayraktar, Ph.D., *Assistant Professor*
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Boong-Yeol Ryoo, Ph.D., *Assistant Professor*
Yimin Zhu, Ph.D.,CCE *Assistant Professor*

Bachelor of Science in Construction Management

Degree Program Hours: 125

The undergraduate program in Construction Management is nationally accredited by the American Council for Construction Education. Its goal is to provide students with the knowledge and skills required for entry level supervisory or managerial positions in the construction industry. Graduates usually find employment as project managers, project schedulers, cost estimators, quality controllers or in managing their own construction firms.

Opportunities for employment or advancement exist in all areas of the construction industry including land development, home building, public building, industrialized building systems, commercial, industrial, marine and highway heavy construction, underwater and space age facilities, material and equipment sales and installations, and construction product research, development and sales.

Honorary and Professional Organizations

Sigma Lambda Chi: Sigma Lambda Chi is the national honor society for students in Construction. The purpose of Sigma Lambda Chi is to recognize students in Construction Management for outstanding scholastic achievement. The organization provides a service to the students by inviting guest lecturers, sponsoring student tutoring and undertaking a variety of service projects.

Student Chapter of the Associated General Contractors of America: The AGC is a national student organization sponsored by the Associated General Contractors. Its purpose is to increase student awareness of the construction industry, promote fellowship and professionalism and to provide service to the Department, University and Community. Membership is open to all Construction related majors. Activities include sponsoring guest lecturers, attendance at local, regional and national A.G.C. meetings and conferences, and undertaking a variety of service projects.

Student Chapter of the Associated Builders and Contractors: The ABC is a national student organization sponsored by the Associated Builders and Contractors. Its purpose is to increase student awareness of the construction industry, promote fellowship and professionalism and to provide service to the Department, University and Community. Membership is open to all Construction related majors. Activities include sponsoring guest lectures, attendance at local, regional and national A.B.C. meetings and conferences, and undertaking a variety of service projects.

Student Chapter of the National Association of Women in Construction: This national student organization is sponsored by the National Association of Women in Construction. Its purpose is to promote knowledge of the construction industry and fellowship within the student body. Activities include monthly meetings with guest lecturers, field trips and a variety of service projects. The FIU student chapter of NAWIC was the first such chapter established in the United States. Membership is open to all construction related majors.

Program of Study

The four year program leading to a Bachelor of Science in Construction Management is for students who are interested in preparing for professional careers in construction management, operations, and related areas in the construction industry.

The Lower Division courses, i.e. Freshman and Sophomore levels, are selected to provide easy transfer for community college graduates. With proper planning, full time transfer students with an A.A. degree are able to complete the four year degree program in four remaining semesters at the University. Prospective community college transfer students should contact an advisor for program information and Lower Division transfer requirements.

Students already working full or part time, many with trades or construction licenses, are generally able to plan their program around job commitments and responsibilities. Faculty advisors are on hand days and evenings to assist students in course selection and scheduling.

Admission

The Department of Construction Management encourages applications for admission from qualified students regardless of gender, from all cultural, racial, religious or ethnic groups.

Grade Point Average

Admission into the undergraduate program requires a minimum 2.0 grade point average. Students transferring from another university or community college should review the Florida International University Undergraduate Catalog for university policies, application procedures, and financial aid information. Transfer students should also contact a Construction Management advisor to review transcripts and determine allowable transfer credits.

Transfer Credits

No grade below a 'C' in any required course is acceptable for transfer into the program. Lower Division courses (courses at the 1000 or 2000 level) designated as equivalent by the statewide course numbering system will be accepted by the Department as fulfilling the Upper Division requirements. Credits from these Lower Division courses may be used to offset Upper Division core credit requirements. Other 1000 and 2000 level courses designated as equivalent by a department advisor may be accepted by the Department as fulfilling Upper Division requirements. When equivalent Lower Division courses are used to fulfill Upper Division course requirements a student will be required to complete an equal number of 3000 level (or above) credits from approved Departmental

electives. Transfer credits above the 60 semester credit hours accepted from the community college system will not reduce the number of credit hours to be completed in the Upper Division, including electives, to earn a degree.

Core Education Requirements

Students entering the university with less than 36 semester credit hours will be required to meet the requirements of the University Core Curriculum, in addition to the Department Lower Division Core. Students should review the General Core Requirements in the undergraduate catalog.

Non Degree-Seeking

Students wishing to enroll in courses during the application process may do so as a non-degree seeking, special student. Students must consult an advisor for approval and complete a non-degree seeking enrollment waiver. Without this waiver and advisor approval, there is no guarantee that the courses taken will subsequently be accepted for graduation. No more than 15 semester credits of work taken as a non-degree seeking can be applied towards graduation. Students taking courses under the special student designation should consult other sections of this catalog for their pertinent regulations concerning the special student status.

General Regulations

Normal Loads

Students taking a minimum of 12 semester credit hours per semester are considered full time students. Students taking under 12 hours are considered part time and should be aware that certain university privileges and benefits may not be applicable to part time students. It is not recommended that students take more than 18 credit hours per term. Special exceptions may be made, at the option of the Department, in the case of students with a grade point average of 3.0 or greater. Students that meet this criteria wishing to take over 18 semester credit hours must have the approval of both the Chairperson of the Department and the Dean of the College of Engineering and Computing prior to registering.

Grades

The Department of Construction Management requires a minimum grade of 'C' or better in all required courses and electives. This includes those required courses transferred from other institutions.

Grade of Incomplete

A grade of 'I' (Incomplete) may be granted, at the option of the Instructor, to a student who, due to serious, documented, and verifiable extenuating circumstances beyond his/her control is unable to complete the work required to obtain a grade for a course. A student granted a grade of 'I' must complete the work deemed necessary by the Instructor to complete the course as rapidly as possible. The grade will automatically revert to a grade of 'F' (failing grade) if the work is not completed within two terms.

Independent Study

Students who wish to enroll in an independent study course must have the prior written approval of both the instructor and the Department Chairperson. Independent Study courses can not be substituted for required Lower or Upper Division departmental core courses or for elective courses.

Minor in Business

Construction Management students take courses in the College of Business Administration that may be applied towards a minor in Business, Marketing, or Entrepreneurship. Students interested in pursuing one of these options should consult the appropriate section of the catalog for details.

Credit By Examination

The Department does not generally offer credit by examination. A student with outstanding, exceptional and documented skills in a particular subject as well as an outstanding academic record may request credit by examination, and it is the option of the Department Faculty and the Department Chairperson whether to grant the request.

Credit For Non-College Learning

The Department does not award credit for non-college learning (life work experience).

Student Work

The Department reserves the right to retain any and all student work for the purposes of record, exhibition or instruction.

Normal Academic Progress

The student will have maintained normal academic progress when the student earns a minimum grade point average of 2.0 for all work attempted during a term, and an overall minimum of 2.0.

Course Sequence and Prerequisites

Course prerequisites are clearly indicated on the Undergraduate Program sheets, available in the Department office. It is the student's responsibility to ascertain that required prerequisites have been taken and passed prior to registering for a course. Failure to comply with prerequisite requirements may result in the student being dropped from a class.

Probation or Dismissal

Students who do not make satisfactory academic progress may be excluded from further registration. Students dismissed from the University for academic reasons will normally not be allowed to re-enroll for one year.

Class Attendance

Class attendance may be required and may be used for grade determination at the option of the instructor.

Graduation

In order to be eligible to graduate, the student must meet all University and Departmental requirements. The program of studies consists of a minimum of 60 Lower Division semester credit hours and 65 Upper Division semester credit hours for a minimum total of 125 semester credit hours. The waiving of any required course shall not reduce the minimum of 125 semester credit hours required for graduation. A student entering as a freshman or with less than 36 transfer credit hours must have successfully completed the University Core Curriculum with minimum acceptable grades as determined by Undergraduate Studies (see catalog for additional information). In addition, all required Lower Division and Upper Division

Construction Management courses and electives must be completed with a grade of 'C' or better. In order to graduate, a student must also have a minimum grade point average of 2.0, have successfully completed all portions of the CLAST test, and have met the foreign language requirement.

Students should contact an advisor at least one semester prior to their projected graduation and request a review of his or her file. At the start of the final semester the student is required to complete an Application for Graduation. (See catalog for additional information on graduation procedures and scheduling.) If for any reason a student fails to graduate in the semester after applying for graduation, they must reapply.

It is the student's responsibility to ascertain that all requirements for graduation have been met.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admission and Registration and Records.

Undergraduate Curriculum

The following courses comprise the undergraduate curriculum leading to a degree of Bachelor of Science in Construction Management. Except for the Environmental Control courses, and Structural Design II and III, those numbered 'I' shall be taken before courses numbered 'II'. Some credits of the Lower Division Core can be used to satisfy University Core requirements.

University Requirements

First time students or transfer students with less than 36 credit hours must meet the University's core requirements as outlined in this catalog.

Departmental Lower Division Courses

GLY 1010	Physical Geology	3
GLY 1010L	Physical Geology Laboratory	1
BCN 1251	Building Construction Drawing	3
BCN 1272	Plans Interpretation	3
BCN 2210	Construction Materials	3
BCN 2253	Building Construction Drawing	3
BCN 2402	Structural Design I	3
BUL 4320[1]	Business Law I	3
MAC 2233	Calculus For Business	3
PHY 2053	Physics without Calculus	4
PHY 2048L	Physics Laboratory	1
ECO 2013	Principles of Macroeconomics	3
	or	
ECO 2023	Principles of Microeconomics	3
ACG 3024[1]	Accounting For Managers	3
STA 2023	Statistics for Business and Economics	3
BCN 2280	Construction Surveying	3
BCN 3761[1]	Construction Documentation and Communication	3

Upper Division Courses

BCN 1013	Principles of Construction Management	3
BCN 3730	Construction Safety	3
BCN 3740	Legal Aspects of Construction	3
BCN 3762	Building Codes and Quality Control	3
BCN 4431	Structural Design II	3
BCN 4462	Structural Design III	3
BCN 3611	Construction Cost Estimating I	3
BCN 4612	Construction Cost Estimating II	3
BCN 3720	Construction Scheduling I	3
BCN 4724	Construction Scheduling II	3
BCN 3640	Economic Planning for Construction	3
BCN 3753	Financial Management of Construction Organizations	3
BCN 3727	Construction Sitework	3
BCN 4465	Temporary Structure in Construction	3
BCN 4561	Environmental Control in Buildings I	3
BCN 4564	Environmental Control in Buildings II	3
BCN 4703	Management of Construction Projects	3
BCN 4910	Senior Project	3
Business Elective		3

[1]Consult the Department of Construction Management advisor for approved lower division courses to satisfy these requirements.

Business-Management Elective

One 3000 or 4000 level 3 credit business/management elective, selected in consultation with the undergraduate advisor of the department, is required.

Sample Program of Study

The following is a sample program of study for a student seeking to earn a degree of Bachelor of Science in Construction Management. The reader is reminded that all students entering a university in the State University System with fewer than 60 credit hours are required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a state university.

Bachelor of Science in Construction Management

Degree Program Hours: 125

Undergraduate Program

The following analysis assumes that the student enters the university from high school or with less than 36 credits and no foreign language experience.

First Semester: (16)

ENC 1101	Freshman Composition	3
MAC 2233	Calculus For Business	3
ECO 2013	Principles of Macroeconomics	3
	or	
ECO 2023	Principles of Microeconomics	3
SPC 2600	Public Speaking	3
(1) Societies and Identities		3
BCN 1272	Plans Interpretation	3
BCN 1013	Principles of Construction Management	3
SLS 1501	First Year Experience	1

Second Semester: (14)

ENC 1102	Literary Analysis	3
GLY 1010	Introduction to Earth Science	3
GLY 1010L	Introduction to Earth Science Lab	1
(1) Humanities-History (GR)		3
(1) Life Science		3
(1) Life Science Lab		1

Third Semester: (18)

ACG 3024	Accounting for Managers	3
BCN 1013	Principles of Construction Management	3
BCN 1272	Plans Interpretation	3
BCN 2210	Construction Materials	3
(1) Humanities-Other (GR)		3
BCN 3761	Construction Documentation and Communication	3

Fourth Semester: (17)

PHY 2053	Physics w/o Calculus	4
PHY 2048L	General Physics Lab	1
STA 2023	Statistics for Business and Economics	3
BCN 2253	Building Construction Drawing	3
BCN 2280	Construction Surveying	3
BUL 4320	Business Law	3

Fifth Semester: (15)

BCN 2402	Structural Design I	3
BCN 3240	Construction Equipment	3
BCN 3762	Building Codes and Quality Control	3
BCN 3730	Construction Safety	3
BCN 3611	Construction Estimating I	3

Sixth Semester: (18)

BCN 3720	Construction Scheduling I	3
BCN 3727	Construction Sitework	3
BCN 3740	Legal Aspects of Construction	3
BCN 3753	Financial Management of Construction Organizations	3
BCN 4612	Construction Estimating II	3
BCN 4431	Structural Design II	3

Seventh Semester: (15)

BCN 4462	Structural Design III	3
BCN 4465	Temporary Structures	3
BCN 4561	Environmental Control in Buildings I	3
BCN 4703	Management of Construction Projects	3
BCN 4724	Construction Scheduling II	3

Eighth Semester: (12)

BCN 3640	Economic Planning for Construction	3
BCN 4564	Environmental Control in Buildings II	3
BCN 4910	Senior Project	3
Upper Division Business Elective		3

Minor in Construction Management

The Department offers an undergraduate minor in Construction Management for students in other disciplines. For admission to the minor, students need to be fully admitted to their major and must have a 2.25 GPA.

Students opting for a minor in Construction Management must complete the following courses:

BCN 1272	Plans Interpretation
BCN 3611	Construction Estimating I
BCN 3720	Construction Scheduling I
BCN 3730	Construction Safety
BCN 3762	Building Codes and Quality Control
BCN 4703	Management of Construction Projects

Note: Required prerequisites must be taken for all courses in the minor.

Course Descriptions

Definition of Prefixes

BCN-Construction.

BCN 1013 Principles of Construction Management (3). Covers the construction industry with emphasis on the principles of construction management.

BCN 1251 Building Construction Drawing (3). The laboratory application of Methods and Materials of Construction I. Students study plans, elevations, sections, and details appropriate to light construction.

BCN 1272 Plans Interpretation (3). Building construction plans interpretation of working drawings for residential, commercial building, and civil construction.

BCN 2210 Construction Materials (3). A study of the origins, production and uses of construction materials such as concrete, steel, aluminum, wood, brick, and stone. A combination of structural and non-structural, interior and exterior materials and assemblies will be examined.

BCN 2253 Building Construction Drawing (3). Prepare action plans, elevations and sections appropriate to general construction using computer assisted drafting techniques. Prerequisite: BCN 1272.

BCN 2280 Construction Surveying (3). Principles and practices of surveying as it applies to building construction.

BCN 2402 Structural Design I (3). Mechanics of rigid bodies. Topics include forces, moments, equilibrium, loads, reactions, determination of internal forces, solution of frames and trusses, and shear and moment diagrams. Prerequisites: MAC 2147 or MAC 1114, PHY 2053, 2048L.

BCN 3240 Construction Equipment (3). Methods, procedures, and equipment used in residential, commercial, and heavy construction. Equipping the construction plant. Production value analysis. Work effectiveness studies.

BCN 3611 Construction Cost Estimating I (3). Principles and practices of estimating providing application and drill in surveying quantities of labor and materials for general construction projects: excavation, concrete and formwork, carpentry, masonry, structural steel, lath and plaster, interior finishes. Prerequisites: BCN 1272 and BCN 2210.

BCN 3640 Economic Planning for Construction (3). Nature of construction costs, funding sources and arrangements, capital requirements, bonding, insurance, risk and contingency evaluation, general office operations, and bidding procedures.

BCN 3720 Construction Scheduling I (3). The application of the Critical Path Method and Program Evaluation Review Technique to construction planning, scheduled vs. actual job expenditures. Cost forecasting. Development of unit prices from field data. Laboratory is included, which consists of computer applications.

BCN 3727 Construction Sitework (3). Exposition and critical analysis of practical and sequential aspects of converting raw land to finished product. Course will define various steps and discuss techniques of accomplishment. Prerequisites: GLY 1010, BCN 1272, BCN 3240.

BCN 3730 Construction Safety (3). Introduces occupational safety hazards associated with the construction industry. Emphasis placed on recognition, evaluation, and control of safety hazards particularly as they relate to the Occupational Safety and Health Act.

BCN 3740 Legal Aspects of Construction (3). Legal and business aspects of engineering contracts and specifications in the construction industry. Analysis, study of precedents, and application of contract clauses, including changes, changed conditions, termination, disputes, payments, risk and insurance, inspection, liquidated damages, and technical requirements. Prerequisites: BUL 4320 and BCN 1013.

BCN 3753 Financial Management of Construction Organizations (3). Accounting for construction operations; labor, materials, equipment, and overhead costs. Money management, depreciation, taxes, loans, profit/losses analysis. Prerequisites: ACG 3024 or equivalent.

BCN 3761 Construction Documentation and Communication (3). Obtaining, writing, and transmitting construction documentation for technical and legal requirements for construction projects. Course stresses the development of verbal and written communication skills.

BCN 3762 Building Codes and Quality Control (3). Study of building codes required by local, county, and state levels and their relation to quality control. Prerequisite: BCN 1013, BCN 2210.

BCN 3949 Construction Management Internship (1). Supervised work experience in construction management. Evaluation and reports required. Prerequisites: Consent of advisor and Department Chairperson.

BCN 4431 Structural Design II (3). Basic strength of materials and introduction to the material properties, allowable stresses, applicable codes and standards for the design of metal structures. Prerequisites: BCN 2210, BCN 2402, PHY 2053, PHY 2048L.

BCN 4462 Structural Design III (3). Introduction to the material properties, allowable stresses, applicable codes and standards for the design of reinforced concrete, prestressed concrete and reinforced masonry structures. Prerequisites: BCN 4431.

BCN 4465 Temporary Structures in Construction (3). Material properties, allowable stresses, applicable codes and standards for timber structures and the theory and practice of the planning, design, erection and maintenance of temporary structures. Prerequisites: BCN 4431.

BCN 4561 Environmental Control in Buildings I (3). A study of concepts and systems for providing optimum thermal, lighting, plumbing, and acoustical conditions, in both commercial and residential buildings.

BCN 4564 Environmental Control in Buildings II (3). Concepts and practices of electrical systems in the construction of residential and commercial buildings, including code provisions and cost estimates. Prerequisites: PHY 2053 and PHY 2048L.

BCN 4612 Construction Cost Estimating II (3). Quantity take-offs and pricing, marketing policies and the application of microcomputers in construction estimating. Prerequisites: BCN 3240, BCN 3611 and BCN 3727.

BCN 4703 Management of Construction Projects (3). Organization and management theory elements of leadership and human supervision, organization, office operations, labor relations, safety, and work improvement, as they relate to project field operations. Prerequisites: BCN 3762, BCN 3740, BCN 3730.

BCN 4724 Construction Scheduling II (3). The application of advanced computerized planning, scheduling, and simulation techniques to construction operations, processes, and control. Prerequisites: BCN 3720 and BCN 3611.

BCN 4794 Quality Control in Construction (3). Quality control as governed by the job inspector, contractor superintendent, architect-engineer, building official, and governmental agencies and requirements. Prerequisites: BCN 3762 or equivalent.

BCN 4905 Directed Independent Studies (VAR). Specialized intensive study in an area of special interest to the student. Prerequisites: Permission of the instructor and the Department Chair.

BCN 4906 Special Topics (3). For a group of students who wish an intensive study of a topic not otherwise offered in the University. Prerequisites: Permission of the instructor and the Department Chair.

BCN 4910 Senior Project (3). This course requires the senior level construction management student to work on a project designed to integrate the knowledge acquired in multiple topics within the undergraduate curriculum. Prerequisites: All BCN courses except 3640, 3753, and 4564.

Electrical and Computer Engineering

Kang Yen, *Chairperson and Professor*
Malek Adjouadi, *Associate Professor*
Jean Andrian, *Associate Professor*
Wilmer Arellano, *Visiting Instructor*
Tadeusz Babij, *Professor*
Armando Barreto, *Associate Professor*
Amaury Caballero, *Lecturer*
Malcolm Heimer, *Associate Professor*
W. Kinzy Jones, *Professor*
Sakhrat Khizroev, *Associate Professor*
Grover Larkins, *Professor*
Kia Makki, *Lucent Technology Professor*
Walter Maldonado, *Undergraduate Advisor*
Osama Mohammed, *Professor*
Roberto Panepucci, *Assistant Professor*
Niki Pissinou, *Professor and Director, Telecommunications and Information Technology Institute*
Gustavo Roig, *Associate Dean and Professor*
Pierre Schmidt, *Visiting Professor*
James Story, *Professor*
Frank Urban, *Associate Professor*
Yuriy A. Vlasov, *Graduate Program Director and Assistant Professor*
Subbarao Wunnava, *Professor*
Hao Zhu, *Assistant Professor*

Bachelor of Science in Electrical Engineering

Program Educational Objectives

The Electrical Engineering curriculum provides a strong foundation of engineering concepts and design in the varied and rapidly expanding fields of electrical engineering. The Electrical Engineering program educational objectives are:

1. **Depth.** To provide students with an understanding of the fundamental knowledge necessary for the practice of, or for advanced study in, electrical engineering, including its scientific principles, rigorous analysis, and creative design.
2. **Breadth.** To provide students with the broad education necessary for productive careers, or for the pursuit of graduate education, including knowledge of important current issues in engineering with an emphasis on electrical engineering.
3. **Professionalism.** To develop skills for clear communication and responsible teamwork, and to instill professional attitudes and ethics, so that students are prepared for the complex global work environment.
4. **Educational Renewal.** To prepare our students with an ability to continually renew and expand their education in a rapidly developing discipline, including recognition of the importance of life-long learning.

Program Educational Outcomes

(a) an ability to apply knowledge of mathematics, science, and engineering
(b) an ability to deisgn and conduct experiments, as well as to analyze and interpret data
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political ethical, health and safety, manufacturability, and sustainability
(d) an ability to function on multi-disciplinary teams
(e) an ability to identify, formulate, and solve engineering problems
(f) an understanding of professional and ethical responsibility
(g) an ability to communicate effectively
(h) the broad education necessary to understand the impact of engineering solution in a global, economic, environmental, and societal context
(i) a recognition of the need for and an ability to engage in life-long learning
(j) a knowledge of contemporary issues
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
(l) an ability to apply probability and statistics, including applications to electrical engineering program
(m) an ability to apply knowledge of advanced math (D.E., Linear Algebra, Complex Variables, discrete mathematics)

Common Prerequisites

CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Multivariable Calculus
MAP 2302	Differential Equations
PHY 2048	Physics with Calculus I
PHY 2049	Physics with Calculus II
PHY 2049L	General Physics Lab II

Degree Program Hours: 128

Students applying to Electrical Engineering should have good communication skills in English (verbal and written) and exhibit logical thinking, creativity, imagination, and persistence. They should have proven academic background in mathematics, chemistry, engineering drawing and physics. Missing courses may be taken at FIU, with advisor approval.

At the undergraduate level, the basic required program of instruction in fundamental theory and laboratory practice is balanced by a broad range of electives in such fields as computers, communication systems, control systems, power systems, and bio-engineering. Students, with the counsel and guidance of faculty advisers, design their electives program around their own special interest.

Any course taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a grade of "DR" or "DF". The student will not be eligible for a refund.

Students must earn a minimum grade of "C-" and a minimum GPA of 2.0 in all EEL courses required for graduation.

Students who have been dismissed for the first time from the University due to low grades, may appeal to the department for reinstatement. A second dismissal results in no possibility of reinstatement.

5 Year Accelerated Combined BS in Electrical Engineering and MS in Biomedical Engineering Program

The Electrical Engineering Department and the Biomedical Engineering Department at FIU offer a 5 year, 150 credit combined BS/MS degree program. Students who wish to be admitted must have completed at least 90 credits toward their BS degree and have earned at least a 3.25 GPA in those courses required for a BS in Electrical Engineering with a minor in Biomedical Engineering. All requirements for the electrical engineering program applies to the combined BS/MS program. See an advisor and/or the Biomedical Engineering section of this catalog for more details.

5 Year Accelerated Combined BS/MS in Electrical Engineering Program

Students who pursue a BSEE degree and are in their first semester of the senior year, with at least a 3.3 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS/MS program. Students must also submit an on-line application to the University Graduate School for admission to the MS program. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of the University Graduate School.

Students enrolled in the program may count up to six hours of ECE graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. During this combined BS/MS program, upon completion of all the requirements of the undergraduate program, students will receive their BS degree. Students in this program have up to one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other students, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. Students enrolled in the program may count up to six credit hours of EE graduate courses toward the elective engineering BSEE requirements as well as toward the MSEE degree. Only graduate courses with formal lectures can be counted for both degrees. Students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor regarding their eligibility to the program. They should also meet the graduate advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Lower Division Preparation

Lower division requirements include at least 60 credit hours of pre-engineering courses (see the Undergraduate Studies portion of this catalog for specific requirements). These courses include high level programming language (EEL 2880 for Freshman and students who are transferring in without C programming), common prerequisite courses, 2 semesters of English composition and 2 other Gordon rule writing courses, and Engineering Graphics or CAD (unless previously taken in high school). A minimum grade of "C" is required in all writing courses, all calculus courses, differential equations, both physics classes, and chemistry. In addition, both transfer students and FIU freshman must take a combination of social sciences and humanities that fulfill the FIU University Core Curriculum requirements and whose topics also complement the goals and objectives of the College of Engineering and Computing (including economic, environmental, political, and/or social issues. See semester-by-semester sample program for courses that fulfill this requirement). Students who have not satisfactorily met the social science/humanities requirements will be required to take additional (advanced) humanities/social science course(s).

In addition students may transfer a pre-approved engineering Statics course if it meets the proper prerequisites for the course (speak to an FIU engineering advisor to see if your community college offers an acceptable statics course). Students must make up any missing prerequisites before they will be allowed to begin taking certain engineering courses (see the course listing on the following page for the complete list of required courses. Required pre/corequisites are listed in the section on Course Descriptions).

Other Requirements

Students must meet the University Foreign Language Requirement, must pass the CLAST or have it waived, must have a minimum 2.0 GPA, must complete all required classes, and must otherwise meet all of the state and university requirements in order to graduate. Students who enter the university with fewer than 60 transferred credits must take 9 summer credits. Also see the Undergraduate Studies portion of this catalog for additional information.

Upper Division Program

The program includes Statics, Dynamics, Materials in Engineering, Signals and Systems, Engineering Economy, Probability and Statistics, Advanced Humanities/Social Science and the following:

Electrical Engineering Curriculum (Major only): (53)

EEL 3111	Circuits I	3
EEL 3111L	Circuits Lab	1
EEL 3112	Circuits II	3
EEL 3303	Electronics I	3
EEL 3303L	Electronics I Lab	1
EEL 3396	Introduction to Solid State Devices	3
EEL 3514	Communication Systems	3
EEL 3657	Control Systems	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1
EEL 4010	Senior Design I: Ethics, Communications, and Constraints	2
EEL 4011	Senior Design II: Project Implementation	2
EEL 4213	Power Systems I	3
EEL 4213L	Energy Conversion Lab	1
EEL 4304	Electronics II	3

EEL 4304L	Electronics II Lab	1
EEL 4314	Integrated Circuits and Systems	3
EEL 4314L	Integrated Circuits Lab	1
EEL 4410	Introduction to Fields and Waves	3
EEL 4611L	Systems Lab	1
EEL 4709C	Computer Design	3
Electrical Engineering Electives (*two courses*)		6

Areas of Specialization:

Electrical Engineering students must choose an area of specialization from the following list and take the corresponding courses as their Elective I and Elective II.

Power:

EEL 4214	Power II	3
EEL 4215	Power III	3

Communications:

EEL 4140	Filter Design	3
EEL 4510	Introduction to Digital Signal Processing	3

Controls:

EEL 4140	Filter Design	3
EEL 4611	Control Systems II	3

Bio-Engineering:

ELR 4202C	Medical Instrumentation Design	4
EEL 4140	Filter Design	3

Computers:

EEL 4746	Microcomputers I	3
EEL 4746L	Microcomputers Lab I	1
	and either:	
EEL 4510	Introduction to Digital Signal Processing	3
	or	
EEL 4343	Introduction to Digital Electronics	3

Electrical Engineering Program Freshman to Senior

First Semester: (14)

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
EGN 1002	Engineering Orientation	2
ENC 1101	Freshmen Composition	3
MAC 2311	Calculus I	4
SLS 1501	Freshman Experience	1

Second Semester: (17)

CRW 2001	Creative Writing	3
	or	
MUH 1011	Music Appreciation	3
	or	
MUH 2116	Evolution of Jazz	3
	or	
TPP 2100	Introduction to Acting	3
	or	
THE 2000	Theatre Appreciation	3
EGN 1033	Technology, Humans, and Society	3
ENC 1102	Literary Analysis	3
MAC 2312	Calculus II	4
PHY 2048	Physics with Calculus I	4

Third Semester: (15)

MAC 2313	Multivariable Calculus	4
PHY 2049	Physics with Calculus II	4
PHY 2049L	Physics II Lab	1
Math Elective (MAS 3105, STA 3033, or EIN 3235)		3
Humanities with Writing I*		3

Fourth Semester: (12)

MAP 2302	Differential Equations	3
EGN 3365	Materials in Engineering	3
EEL 2880	Applied Software Techniques in Engineering	3
Humanities and Writing II*		3

Fifth Semester: (16)

ECO 2013	Macroeconomics	3
	or	
ECO 2023	Microeconomics	3
	or	
INP 2002	Introductory Industrial/Organization Psychology	3
	or	
INR 2001	Intro to International Relations	3
	or	
INR 2002	Dynamics of World Politics	3
	or	
GEO 2000	Intro to Geography	3
	or	
SYG 2010	Social Problems	3
EEL 3111	Circuits I	3
EEL 3111L	Circuits Lab	1
EEL 3135	Signals & Systems	3
EEL 3396	Intro to Solid State Devices	3
Adv. Humanities/Social Science/ Technical Elective		3

Sixth Semester: (16)

EIN 3354	Engineering Economy	3
EEL 3112	Circuits II	3
EEL 3514	Communication Systems	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1
EEL 4410	Introduction to Fields and Waves	3

Seventh Semester: (14)

EEL 3303	Electronics I	3
EEL 3303L	Electronics I Lab	1
EEL 3657	Control Systems I	3
EEL 4213	Power Systems I	3
EEL 4213L	Energy Conversion Lab	1
EEL 4709C	Computer Design	3

Eighth Semester: (13)

EGN 3311	Statics	3
EEL 4304	Electronics II	3
EEL 4304L	Electronics II Lab	1
EEL 4010	Senior Design Part I: Ethics, Comm, and Constraints	2
EEL 4611L	Systems Lab	1
EE Elective I		3

Ninth Semester: (12)

EGN 3321	Dynamics	3
EEL 4011	Senior Design II: Project Implementation	2
EEL 4314	Integrated Circuits and Systems	3
EEL 4314L	Integrated Circuits Lab	1
EE Elective II (same specialization as EE Elective I)		3

*Humanities and Writing I & II: Choose 2 from the following: ARC 2701, HUM 3306, PHI 2600, WOH 2001, EUH 2030, AMH 2002. At least 1 of the courses must have a history component.

5 Year Accelerated Combined BS in Electrical Engineering/MS in Telecommunications and Networking Program

Students who pursue a BS degree and are in their first semester of the senior year, with at least a 3.3 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS/MS program. Students must also submit an on-line application to the University Graduate School for admission to the MS program. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of the University Graduate School.

Students enrolled in the program may count up to six credit hours of Telecommunications and Networking graduate courses as credits for both the BS and MS degrees. The combined BS/MS program is a continuous program and upon completion of all the requirements of the undergradute program, students will receive their BS degree. Students in this program have one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post B.S. requirement or who elect to leave the combined program at any time and earn only the BS degree will have thereafter the same access requirements to regular graduate programs as any other student, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. Students enrolled in the program may count up to six credit hours of Telecommunications and Networking graduate courses toward the elective BSEE requirements as well as toward the MS in Telecommunications and Networking degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the graduate advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Bachelor of Science in Computer Engineering

Program Educational Objectives

The curriculum structure provides an in depth study of the major areas of computer engineering by providing a strong mathematical foundation, a balanced view of hardware and software design and application techniques. The goal of the program is to train students in the skills of the computer engineer specialized in the design and application of both computer hardware and software. The program educational objectives are:

1. **Depth.** To provide students with an understanding of the fundamental knowledge necessary for the practice of, or for advanced study in, electrical or computer engineering, including its scientific principles, rigorous analysis, and creative design.
2. **Breadth.** To provide students with the broad education necessary for productive careers, or for the pursuit of graduate education, including knowledge of important current issues in engineering with an emphasis on computer engineering.
3. **Professionalism.** To develop skills for clear communication and responsible teamwork, and to inculcate professional attitudes and ethics, so that students are prepared for the complex global work environment.
4. **Educational Renewal.** To prepare our students with an ability to continually renew their education in a rapidly developing discipline, including recognition of the importance of life-long learning.

Program Educational Outcomes

(a) an ability to apply knowledge of mathematics, science, and engineering
(b) an ability to deisgn and conduct experiments, as well as to analyze and interpret data
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political ethical, health and safety, manufacturability, and sustainability
(d) an ability to function on multi-disciplinary teams
(e) an ability to identify, formulate, and solve engineering problems
(f) an understanding of professional and ethical responsibility
(g) an ability to communicate effectively
(h) the broad education necessary to understand the impact of engineering solution in a global, economic, environmental, and societal context
(i) a recognition of the need for and an ability to engage in life-long learning
(j) a knowledge of contemporary issues
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
(l) an ability to apply probability and statistics, including applications to computer engineering program
(m) an ability to apply knowledge of advanced math (discrete mathematics, D.E., Linear Algebra, Complex Variables)

Common Prerequisites

CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Multivariable Calculus
	or
MAD 3401	Numerical Analysis
MAD 2104	Discrete Mathematics
MAP 2302	Differential Equations
PHY 2048	Physics with Calculus I
PHY 2049	Physics with Calculus II
PHY 2049L	General Physics Lab II
EEL 2880	Applied Software Techniques in Engineering

Degree Program Hours: 128

Any course taken without the required prerequisites and corequisites will be automatically dropped before the end of the term, resulting in a grade of "DR" or "DF".

Students must earn a minimum grade of "C" in all calculus, physics, chemistry and differential equations classes. Students must earn at least a "C-" in all CEN,

COP, as well as EEL courses required for graduation. Also, a student must have a minimum GPA of 2.0 in all EEL courses. Computer Engineering students must take either Multivariable Calculus or Numerical Analysis and receive a minimum grade of "C".

Students who have been dismissed for the first time from the University due to low grades, may appeal to the department for reinstatement. A second dismissal results in no possibility of reinstatement.

Sections titled "Other Requirements" and "Lower Division Preparation" in the Electrical Engineering section are also requirements for the Computer Engineering students. Knowledge of "C" is required as a prerequisite for the computer software curriculum and Discrete Math.

Upper Division Program

The upper division program includes Discrete Math, Statics, Engineering Economy, Signals and Systems, and the following:

Computer Software Curriculum: (19)

CEN 4010	Software Engineering	3
COP 2210	Computer Programming I	4
COP 3337	Computer Programming II	3
COP 3530	Data Structures	3
COP 4610	Operating Systems Principles	3
COP 4225	Advanced Unix Programming	3
	or	
COP 4226	Advanced Windows Programming	3

Electrical Engineering Curriculum: (22)

EEL 3110	Circuits Analysis	3
EEL 3111L	Circuits Lab	1
EEL 3303	Electronics I	3
EEL 3303L	Electronics I Lab	1
EEL 3514	Communication Systems	3
EEL 3657	Control Systems I	3
EEL 4343	Introduction to Digital Electronics	3
EEL 4314	Integrated Circuits and Systems	3
EEL 4314L	Integrated Circuits Lab	1
EEL 4611L	Systems Lab	1

Computer Hardware Curriculum: (22)

EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1
EEL 4010	Senior Design I: Ethics, Communications and Constraints	2
EEL 4011	Senior Design II: Project Implementation	2
EEL 4709C	Computer Design	3
EEL 4746	Microcomputers I	3
EEL 4746L	Microcomputers I Lab	1
EEL 4747C	Microcomputers II	4
Computer Engineering Elective		3

Note: The computer engineering elective must be selected from the following list:

EEL 4006	Development of Dynamic Web Sites	3
EEL 4510	Introduction to Digital Signal Processing	3
EEL 4713	Digital Logic Design II	3

Computer Engineering Program

Freshman to Senior

First Semester: (14)

CHM 1045	General Chemistry I	3
CHM 1045L	Gen. Chemistry Lab I	1
EGN 1002	Engineering Orientation	2
ENC 1101	Freshman Composition	3
MAC 2311	Calculus I	4
SLS 1501	Freshman Experience	1

Second Semester: (18)

COP 2210	Computer Programming I	4
EGN 1033	Technology, Humans, and Society	3
ENC 1102	Literary Analysis	3
MAC 2312	Calculus II	4
PHY 2048	Physics with Calculus I	4

Third Semester: (17)

CRW 2001	Creative Writing	3
	or	
MUH 1011	Music Appreciation	3
	or	
MUH 2116	Evolution of Jazz	3
	or	
THE 2000	Theatre Appreciation	3
	or	
TPP 2100	Introduction to Acting	3
MAD 2104	Discrete Math	3
MAP 2302	Differential Equations	3
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1
EEL 2880	Applied Software Techniques in Engineering	3

Fourth Semester: (16)

COP 3337	Intermediate Programming	3
ECO 2013	Macroeconomics	3
	or	
ECO 2023	Microeconomics	3
	or	
INP 2002	Introductory Industrial/ Organization Psychology	3
	or	
INR 2001	Intro to International Relations	3
	or	
INR 2002	Dynamics of World Politics	3
	or	
GEO 2000	Intro to Geography	3
	or	
SYG 2010	Social Problems	3
EEL 3110	Circuits Analysis	3
EEL 3111L	Circuits Lab	1
Humanities and Writing I*		3
EGN 1110C	Engineering Drawing	3

Fifth Semester: (16)

Humanities and Writing II*		3
EGN 3311	Statics	3
EIN 3354	Engineering Economy	3
EEL 3135	Signals and Systems	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1

Sixth Semester: (13)

EEL 3303	Electronics I	3
EEL 3303L	Electronics I Lab	1
EEL 3514	Communication Systems	3
EEL 4709	Computer Design	3
COP 3530	Data Structures	3

Seventh Semester: (13 or 14)

COP 4610	Operating Systems	3
MAC 2313	Multivariable Calculus	4

	or	
MAD 3401	Numerical Analysis	3
EEL 3657	Control Systems	3
EEL 4746	Microcomputer I	3
EEL 4746L	Microcomputers I Lab	1

Eighth Semester: (15)

EEL 4343	Introduction to Digital Electronics	3
EEL 4747C	Microcomputers II	4
EEL 4010	Senior Design I: Ethics, Communications, and Constraints	2
CEN 4010	Intro to Software Engineering	3

Ninth Semester: (13)

Computer Engineering Elective		3
EEL 4611L	Systems Lab	1
EEL 4011	Senior Design II: Project Implementation	2
COP 4225	Advanced UNIX Prgramming	3
	or	
COP 4226	Advanced Windows Programming	3
EEL 4314	Integrated Circuits and Systems	3
EEL 4314L	Integrated Circuits Lab	1

*Humanities and Writing I & II: Choose 2 from the following: ARC 2701, HUM 3306, PHI 2600, WOH 2001, EUH 2030, AMH 2002. At least 1 of the courses must have a history component.

5Year Accelerated Combined BS/MS in Computer Engineering

Students who have completed a minimum of 90 hours towards their Bachelors of Science degree in Computer Engineering and have earned at least a 3.3 GPA on both overall and upper division courses may, upon recommendation from three ECE faculty members, apply to the department to enroll in the combined BS/MS program. Students must also submit an on-line application to the University Graduate School for admission to the master's degree program. In addition to the admission requirements of the combined program, students must meet all the admission requirements of the University Graduate School.

Students enrolled in the program may count up to six hours of ECE graduate courses as credits for both the BS and MS degrees. The combined BS/MS program is a continuous program and upon completion of all the requirements of the undergraduate program, students will receive their BS degree. Students in this program have one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post B.S. requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other students, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. Students enrolled in the program may count up to six credit hours of CpE graduate courses toward the elective engineering BSCpE requirements as well as toward the MSCpE degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the graduate corrdinator to learn about the graduate program and available courses before completing the application from and submitting it to the undergraduate advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Course Descriptions

Definition of Prefixes

CDA - Computer Design/Architecture
EGN - Engineering: General
EEL - Engineering: Electrical
ELR - Electrical Laboratory/Research
TCN - Telecommunications/Networks
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

CDA 4400 Computer Hardware Analysis (3). The study of hardware functions of a basic computer. Topics include logic elements, arithmetic logic units, control units, memory devices, organization and I/O devices (for non-EE majors only). Prerequisites: CDA 4101 and MAD 2104.

EGN 1002 Engineering Orientation (2). Introduction to aspects of the engineering profession. Computer tools and basic engineering science. Team-based engineering projects. (F,S)

ELR 4202C Medical Instrumentation Design (4). Concepts of transducers and instrumentation systems; origins of biopotentials; electrical safety; therapeutic and prosthetic devices. Prerequisites: EEL 3003 or EEL 3110 or EEL 3111.

EEL 2880 Applied Software Techniques in Engineeing (3). Engineering problem solving process, overview of a generalized computing system, software development, real-life engineering applications, computational implications. (F,S)

EEL 3003 Electrical Engineering I (3). For non-EE majors. Basic principles of DC and AC circuit analysis, electronic devices and amplifiers, digital circuits, and power systems. Prerequisite: MAC 2312. Corequisite: MAP 2302. (F,S,SS)

EEL 3110 Circuit Analysis (3). Introductory circuit analysis (for Computer Engineering majors) deals with DC, AC, and transient electrical circuit analysis, and the general excitation of circuits using the Laplace transform. Prerequisites: MAC 2312, PHY 2049. Corequisite: EEL 3111L (for CE Majors).

EEL 3111 Circuits I (3). Introductory circuits course dealing with DC, AC and transient electrical circuit analysis, involving passive elements such as resistors, capacitors, inductors, transformers, etc. Prerequisites: MAC 2312 and PHY 2049. Corequisites: MAP 2302 and EEL 3111L. (F,S)

EEL 3111L Circuits Lab (1). This lab introduces basic test equipment; oscilloscopes, multimeters, power supplies, function generator, etc., and uses this equipment in various experiments on resistors, capacitors, and inductors. Prerequisite: PHY 2049L. Corequisite: EEL 3111. (F,S)

EEL 3112 Circuits II (3). Application of operational methods to the solution of electrical circuits. Effect of poles and zeroes on the response. Transfer function of electrical networks. Laplace and Fourier transforms; network parameters. Prerequisites: MAP 2302, EEL 3111, and EEL 3135. (S,SS)

EEL 3135 Signals and Systems (3). Use of Fourier analysis in electrical and electronic systems. Introduction to probability theory, linear algebra and complex variables. Prerequisite: MAP 2302. (F,S)

EEL 3160 Computer Applications in Electrical Engineering (3). Interactive techniques of computers to simulate and design electrical engineering circuits and systems. Prerequisite: Permission of the instructor.

EEL 3303 Electronics I (3). Introductory electronics course dealing with basic electronic devices such as diodes, transistors, FETs, SCRs, etc., and their circuit applications. Prerequisites: EEL 3111 or EEL 3110. Corequisite: EEL 3303L. (F,SS)

EEL 3303L Electronics I Laboratory (1). Designing, building, and Op-Amps testing electronic circuits which use diodes, BJTs and FETs. Prerequisite: EEL 3111L. Corequisite: EEL 3303. (F,SS)

EEL 3396 Introduction to Solid State Devices (3). Introduction to the physics of semiconductors; charge carrier statistics and charge transport in crystalline solids. Basic operations of solid state devices including p-n junction diode, the bipolar junction transistor and field effect transistors. Prerequisite: MAP 2302. Corequisite: EEL 3111. (F,S)

EEL 3514 Communication Systems (3). An introductory course in the field of analog communication systems. Transmitters, receivers, and different modulation and demodulation techniques are studied. A basic treatment of noise is also included. Prerequisite: EEL 3135. Corequisite: EEL 3112 or 3110. (F,S)

EEL 3657 Control Systems I (3). Analysis of linear time-invariant feedback control systems. System modeling, time and frequency-domain response, stability and accuracy. Analysis by use of Root- Locus, Bode plots, Nyquist diagram. Prerequisites: EEL 3112 or EEL 3110 and EEL 3135. (F,SS)

EEL 3712 Logic Design I (3). Boolean Algebra. Binary number systems. Combinational logic design using SSI, MSI and LSI. Sequential logic design. Corequisites: EEL 3712L, EEL 3111 or EEL 3110. (S,SS)

EEL 3712L Logic Design I Lab (1). Laboratory experiments, using gates, combinational networks, SSI, MSI, LSI. Sequential logic design. Corequisites: EEL 3111L and EEL3712. (S,SS)

EEL 4006 Development of Dynamic Web Sites (3). Techniques for the development of dynamic web sites, which will generate individualized web pages, according to data supplied by the user or retrieved from data stores available to the web server. Prerequisites: EEL 2880 or permission of instructor.

EEL 4010 Senior Design I: Ethics, Communications, and Constraints (2). Beginning of the Major Design Experiment of the Professional ethics, oral communications, project feasibility study, proposal writing, system design methodology, human factors, intellectual property, liability and schedules. Prerequisite: Senior standing. (S,F,SS)

EEL 4011 Senior Design II: Project Implementation (2). Design of a complete EE or CpE system including use of design methodology, formulation, specifications, alternative solutions, feasibility, economic, reliability, safety ethics, and social impact. Prerequisite: EEL 4010. (S,F,SS)

EEL 4015 Electrical Design in Buildings I (3). Application of electrical codes and regulations. Design of loads, circuits, surge protectors, feeders, panels, and breakers. Prerequisites: EEL 3111 and EEL 3111L.

EEL 4016 Electrical Design in Buildings II (3). Electrical design of industrial buildings, size and design of distribution rooms, switchboards, transformers, bus ducts, motor control centers, starters, voltage drop calculations, lighting distribution. Prerequisite: EEL 4015.

EEL 4140 Filter Design (3). Approximation techniques. Active RC second order modules. Low pass filters, bandpass filters, high pass filters, notch filters are studied in detail. Sensitivity and high order filters. Design and laboratory implementation. Prerequisite: EEL 4304.

EEL 4213 Power Systems I (3). Introductory course to power systems components; transformers, induction machines, synchronous machines, direct current machines, and special machines. Prerequisite: EEL 4410. Corequisites: EEL 3112 and EEL 4213L. (F,SS)

EEL 4213L Energy Conversion Lab (1). Operation, testing, and applications of energy conversion machines including AC and DC motors and generators. Experiments on magnetic circuits and transformers. Prerequisite: EEL 4410. Corequisite: EEL 4213. (F,SS)

EEL 4214 Power Systems II (3). Transmission line models, the bus admittance matrix, load flow studies and solution techniques, economic dispatch with and without losses, computer applications related to power system operations. Prerequisite: EEL 4213.

EEL 4215 Power Systems III (3). Short circuit calculations, symmetrical and unsymmetrical fault analysis, transient stability and dynamic studies as well as power system control. Computer applications. Prerequisite: EEL 4213.

EEL 4241 Power Electronics (3). Power semiconductor devices, power supplies, DC choppers, AC voltage controller, power inverter, AC and DC drives. Prerequisites: EEL 4213 and EEL 4304.

EEL 4304 Electronics II (3). Second course in electronics with particular emphasis on equivalent circuit representation and analysis of electronic analog circuits and systems, their frequency response and behavior under feedback control. Prerequisites: EEL 3112 and EEL 3303. Corequisite: EEL 4304L. (F,S)

EEL 4304L Electronics II Laboratory (1). Design and measurement experiments of advanced electronics, including applications of integrated circuits. Prerequisite: EEL 3303L. Corequisite: EEL 4304. (F,S)

EEL 4314 Integrated Circuits and Systems (3). Continuation of Electronics II with major emphasis on applications of integrated circuits and design of analog, control, communication and digital electronic systems. Prerequisites: EEL 4304 or EEL 4343. Corequisite: EEL 4314L. (F,S,SS)

EEL 4314L Integrated Circuits Laboratory (1). Laboratory experiments in integrated circuits. Includes design of filters, analog systems, A/D and D/A systems. Prerequisite: EEL 3303L. Corequisite: EEL 4314. (F,S,SS)

EEL 4343 Introduction to Digital Electronics (3). This course focuses on digital electronics. BJT as a switch, CMOS and other advanced logic-gate circuits, data converters, switched capacitor filters, semiconductor memories. Prerequisite: EEL 3303.

EEL 4410 Introduction to Fields and Waves (3). Static electric field, the steady electric current, magnetic field of ferro-magnetic materials. The relation between field and circuit theory; Waves and wave polarization, reflection, refraction, and diffraction. Prerequisites: MAC 2313 and EEL 3111. (F,S,SS)

EEL 4461C Antennas (3). Introduction to linear antennas, linear arrays and aperture antennas. Far field pattern calculation and measurement techniques. Prerequisites: EEL 3514 or permission of the instructor.

EEL 4510 Introduction to Digital Signal Processing (3). Z transform and digital filters. Design of digital filters. Effects of finite register length in digital filters. Engineering applications of digital filters. Prerequisites: EEL 3514 or permission of the instructor. Corequisites: EEL 4314 or permission of instructor.

EEL 4515 Advanced Communication Systems (3). Advanced senior level course designed for those students who desire to enhance their engineering knowledge in communication systems. State-of-the-art techniques in FM, digital communication, phase locked loops, noise treatment, threshold improvement, etc. Prerequisites: EEL 3514, EEL 4304 or permission of the instructor.

EEL 4611 Control Systems II (3). Design by Root-Locus, Bode plot, and Guillin-Truxal approach; characteristics of some typical industrial controllers and sensors. Computer simulation and other modern topics are included. Prerequisites: EEL 3657 or permission of the instructor.

EEL 4611L Systems Laboratory (1). Laboratory experiments in various systems. Includes position and velocity control systems, zeroth order, first order, and second order systems. Communication Systems. Corequisites: EEL 3657 and EEL 3514. (S,F)

EEL 4709C Computer Design (3). Computer architecture, arithmetic units, RAM, ROM, tape, disk, CPU, memory systems, data, input/output devices. Distributed and centralized control. Prerequisites: EEL 3712 and EEL 3712L. (F,SS)

EEL 4713 Digital Logic Design II (3). Upper division course in system design using state-of-the-art digital integrated circuits and concepts leading to realization of practical digital electronic systems. Prerequisites: EEL 3712 or permission of the instructor.

EEL 4746 Microcomputers I (3). RAM, ROM, and CPU architecture. Instruction set. Timing sequences. Sub-routines. Interrupts. Peripherals. Applications. System design. Prerequisites: EEL 4709C or permission of the instructor. Corequisite: EEL 4746L. (F,S)

EEL 4746L Microcomputers I Laboratory (1). Hands-on design experience with microcomputer systems and applications including buses, interfaces, and in-circuit emulation. Prerequisite: EEL 4709C. Corequisite: EEL 4746. (F)

EEL 4747C Microcomputers II (4). Design of interfacing schemes of microcomputers such as video, disk, etc., and state-of-the-art hardware and software features of advanced micro-processors' architectures, real-time systems, hardware-software trade-offs. Prerequisites: EEL 4746 or permission of the instructor.

EEL 4798 Special Topics in Computer Engineering (1-3). Special topics in computer engineering not covered in other courses. Prerequisite: Permission of the instructor.

EEL 4905 Individual Problems in Electrical Engineering (1-3). Selected problems or projects in the student's major field of electrical engineering. It can be extended to a maximum of six hours. Student works independently with a minor advisement from designated faculty member. Prerequisites: Senior level and permission of the instructor.

EEL 4930 Special Topics in Electrical Engineering (1-3). Special topics in electrical engineering not covered in other courses. Prerequisite: Permission of the instructor.

EEL 4949 Co-Op Work Experience (1-3). Practical Co-op engineering work under approved industrial supervision.

TCN 4081 Telecommunication Network Security (3). Introduction and overview of security issues for engineering applications. Topics include design, implementation and management of security in networks. Prerequisites: CIS 4363 or permission of the instructor.

TCN 4211 Telecommunication Networks (3). Underlying engineering principles of computer and digital networks. Topics include physical, link and network layers; telecommunication and switching technologies. Prerequisites: EEL 3514 or permission of the instructor.

TCN 4212 Telecommunication Network Analysis and Design (3). The principle and practice of telecommunication and computer networks with emphasis on telecommunication network protocols, datagram services, routing and QoS. Prerequisites: EEL3514 or permission of instructor.

TCN 4431 Principles of Network Management and Control Standards (3). Problems, principles and technologies in network management. General challenges in management of modern data and telecommunication networks. Prerequisites: EEL 3514 or permission of the instructor.

Industrial and Systems Engineering

Shih-Ming Lee, *Chairperson and Associate Professor*
Alan L. Carsrud, *Clinical Professor*
Martha A. Centeno, *Program Director and Associate Professor*
Chin-Sheng Chen, *Professor*
Joe Chow, *Associate Professor*
Purushothaman Damodaran, *Assistant Professor*
Ronald Giachetti, *Associate Professor*
Khokiat Kengskool, *Associate Professor*
Kia Makki, *Professor*
Jin Kyu Park, *Assistant Professor*
Marcus Perry, *Assistant Professor*
Marc L. Resnick, *Associate Professor*
Mario Sanchez, *Lecturer and Advisor*

The ISE Department is commited to providing an excellent education to our students so that graduates of the BSISE program can function effectively as ISE professionals. Our graduates should be problem solvers, ethical professionals, independent learners, decision makers, and systems designers. Moreover, our students should have the people skills required to interact effectively in the workplace.

The department offers the following options at the Undergraduate level:

1. *Bachelor of Science degree in Industrial and Systems Engineering;*
2. *Combined Bachelor's and Master's degrees in Industrial and Systems Engineering;*
3. *Four ISE minors for non-majors*

Students interested in any of these ISE programs are encouraged to contact the undergraduate advisor Mr. Mario Sanchez at (305) 348-3723, or via email at sanchem@fiu.edu for curriculum details and specific study plan. Degree requirements may be changed during the course of study. Students should consult with the advisor how these changes may or may not affect them. Additional information regarding these programs can also be found on our web site: www.ise.fiu.edu.

Bachelor of Science in Industrial and Systems Engineering

Our BSISE graduates are expected to be problem solvers, ethical professionals, independent learners, decision makers, and systems designers. Moreover, they should have the people skills required to interact effectively in the workplace. Specifically, BSISE graduates should attain the following excellence throughout their careers:

1. Demonstrate abilities to design and integrate systems.
2. Be able to identify, analyze, and derive solutions to problems in the ISE enterprise.
3. Demonstrate decision-making abilities under uncertainty.
4. Demonstrate leadership, teamwork, and communication skills.
5. Understand and practice ethical, professional, and social responsibility
6. Commit to professional life-long learning.

As defined by the Institute of Industrial Engineers (IIE), Industrial Engineering is concerned with the design, improvement and installation of integrated systems of people, materials, information, equipment and energy. A major distinction between industrial engineering and other branches of engineering is that the industrial engineer must consider not only the behavior of inanimate objects as they are governed by physical laws but also the behavior of people as they operate together in organizations, and as such it is often called the people oriented engineering discipline.

The BSISE program emphasizes areas of simulation and modeling, manufacturing systems, human factors/ ergonomics, and engineering management. It is also soundly based in the traditional industrial engineering areas such as work measurement and simplification, probability and statistics, and facility and work place design.

The ISE Department encourages students to get practical industry experience via internships or co-ops at their junior and senior years. Credits for internships and co-ops, however, do not count towards the degree.

Degree Program Hours: 128

Common Prerequisites

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
EIN 3235	Evaluation of Engineering Data I	3
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4
MAP 2302	Differential Equations	3
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1

Lower Division Preparation

Lower division requirements include at least 60 hours of pre-engineering credits (see the Undergraduate Studies portion of this catalog for specific requirements.)

To qualify for admission into the upper division of the Industrial and Systems Engineering upper division program, students must have passed the CLAST and completed at least 60 semester hours of pre-engineering courses which include Calculus I & II, Differential Equations, Statistics, Chemistry I and Lab, Physics with Calculus I & II and Labs, 2 semesters of English and 2 other Gordon rule writing courses, and Engineering Graphics or CAD. A minimum grade of a "C" is required in all writing courses, all calculus courses, Differential Equations, both Physics classes and Chemistry. In addition, both transfer students and FIU Freshman must take a combination of social sciences and humanities that fulfill the state University Core Curriculum requirements and whose topics also complement the goals and objectives of the College of Engineering and Computing (including economic, environmental, political, and/or social issues. See the following suggested list of courses in Arts, Humanities with Writing and Social Inquites). Students who have not satisfactorily met the social science/humanities requirements may be required to take additional (advanced) humanities/social science course(s).

Arts (3)

Choose 1 course:

CRW 2001	Intro to Creative Writing	3
MUH 1011	Music Appreciation	3
MUH 2016	Evolution of Jazz	3
THE 2000	Theatre Appreciation	3
TPP 2100	Intro to Acting	3

Humanities With Writing (6)

One must be historically-oriented (*):

WOH 2001	World Civilization (*)	3
PHI 2600	Intro to Ethics	3

Social Inquiry

Foundations of Social Inquiry (3)

Choose 1 Course:

ECO 2013	Principles of Macroeconomics	3
ECO 2023	Principles of Microeconomics	3
INP 2002	Intro Indus./Org. Psych.	3
SYG 2010	Social Problems	3
GEO 2000	Intro to Geography	3
INR 2001	Intro to Inter. Relations	3
INR 2002	Dynam. Of World Politics	3

Societies and Identities (3)

EGN 1033	Tech., Humans and Society	3

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admissions and the Office of the Registrar.

Upper Division Program

The program includes 21 semester hours of General Engineering courses, 48 semester hours of required Industrial Engineering courses, and 9 hours of technical electives. Students must satisfy all upper division program requirements in effect at the moment of acceptance into the upper division. Students are expected to complete all General Engineering courses by the end of their Junior year.

General Engineering: (21)

EEL 3003	Electrical Engineering I	3
EGN 3123	Computer Assisted Drawing	3
EGN 3311	Statics	3
EGN 3321	Dynamics	3
EGN 3343	Thermodynamics I	3
EGN 3365	Materials in Engineering	3
COP 3175	Visual BASIC	3

Industrial Engineering Core Courses: (48)

EIN 3354	Engineering Economy	3
EIN 3365	Facilities Planning	3
EIN 3390	Manufacturing Processes	2
EIN 3390L	Manufacturing Processes Lab	1
EIN 3331	Quality Control	3
EIN 3600	Industrial Automation	2
EIN 3600L	Industrial Automation Lab	1
ESI 4244	Evaluation of Engineering Data II	3
EIN 4116	Industrial Information Systems	3
EIN 4243	Human Factors in Engineering	2
EIN 4243L	Human Factors Lab	1
EIN 4314	Work Design	2
EIN 4314L	Work Design Lab	1
EIN 4334	Production Planning & Control	3
ESI 3161	Software Tools for ISE	3
ESI 3321	OR I Deterministic Models	3
ESI 4322	OR II Stochastic	3
ESI 3523	Simulation of Industrial Systems	2
ESI 3523L	Simulation of Industrial Systems Lab	1
ESI 4452	Project Management	3
ESI 4554	ISE Systems Design	3

Industrial Engineering Electives (9)

Choose 3 from this list. See advisor for additional choices.

EIN 4122	Industrial Marketing	3
EIN 4214	Safety in Engineering	3
EIN 4261	Industrial Hygiene	3
EIN 4326	Industrial Research and Development	3
EIN 4333	Productivity Planning	3
EIN 4387	Technology Assessment	3
EIN 4389	Technological Forecasting	3
EIN 4391	Concurrent Engineering	3
EIN 4395	Computer Integrated Manufacturing	3
EIN 4933	Special Topics	3
EIN 5106	Regulatory Aspects of Engineering	3
EIN 5226	Total Quality Management for Engineers	3
EIN 5249	Occupational Biomechanics	3
EIN 5256	Usability Engineering	3
EIN 5322	Engineering Management	3
EIN 5332	Quality Engineering	3
EIN 5346	Logistics Engineering	3
EIN 5359	Industrial Financial Decisions	3
EIN 5367	Production Systems	3
EIN 5605	Robotic Assembly Cells	3
ESI 5602	Engineering Data Representation and Modeling	3
ESI 5603	Advanced Software Tools	3

Suggested Program Schedule for the BSISE

First Semester: (15)

SLS 1501	Freshman Experience Seminar	1
ENC 1101	Freshman Composition	3
MAC 2311	Calculus I	4
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
Arts		3

(see suggested list under Lower Division Preparation)

Second Semester: (16)

ENC 1102	Literary Analysis	3
MAC 2312	Calculus II	4
COP 3175	Visual BASIC	3
Humanities with Writing - Historically Oriented		3
Social Inquiry – Foundations		3

(see suggested list under Lower Division Preparation)

Suggested Summer Term: (9)

EGN 3123	Computer Assisted Drawing	3
Social Inquiry: Societies & Identities		3
Humanities		3

(see suggested list under Lower Division Preparation)

Third Semester: (14)

PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
EGN 3365	Materials in Engineering	3
EIN 3235	Evaluation of Engineering Data I	3
EIN 3354	Engineering Economy	3

Fourth Semester: (14)

MAP 2302	Differential Equations	3
PHY 2049	Physics with Calculus II	4
PHY 2049L	Physics with Calculus II Lab	1
EGN 3311	Statics	3
ESI 3161	Software Tools for ISE	3

Fifth Semester: (15)

EGN 3321	Dynamics	3
EGN 3343	Thermodynamics	3
EIN 3331	Quality Control	3
EIN 4314	Work Design	2

EIN 4314L	Work Design Lab	1
ESI 3321	OR I Deterministic Models	3

Sixth Semester: (15)

EIN 3365	Facility Planning and Materials Handling	3
EIN 3390	Manufacturing Process	2
EIN 3390L	Manufacturing Process Lab	1
EIN 3600	Industrial Automation	2
EIN 3600L	Industrial Automation Lab	1
EIN 4243	Human Factors	2
EIN 4243L	Human Factors Lab	1
ESI 4322	OR II Stochastic	3

Suggested Summer Term: (9)
Summer internship recommended

Seventh Semester: (15)

EIN 4116	Industrial Information Systems	3
EIN 4334	Production Planning and Control	3
ESI 3523	Simulation Models of Industrial System	2
ESI 3523L	Simulation Models Lab	1
ESI 4452	Project Management Systems Design	3
IE Elective I		3

Eighth Semester: (15)

EEL 3003	Electrical Engineering I	3
ESI 4554	ISE Systems Design	3
IE Elective II		3
IE Elective III		3
IE Elective IV		3

Combined BS/MS Program

Students who have completed a minimum of 90 hours towards their BS degree and have earned at least a 3.3 GPA on both overall and upper division courses may, upon recommendation from three ISE faculty members, apply to the department to enroll in the combined BS/MS program. Students enrolled in the program may count up to 9 credit hours of ISE graduate courses as credits for both the BS ISE electives and the MS degree. The BS/MS (3 +2) Program has been designed to be a continuous program. Students in 3 + 2 programs will apply for graduation with the BS and MS at the same time. Students will receive a BS degree and a MS degree on the same date, after requirements for both are completed. The student's advisor will insure that appropriate forms are completed, and that students do not apply for BS degree graduation until both BS and MS requirements are finished. Upon the completion of BS degree requirements, students can elect to permanently leave the combined program at any time and earn only the BS degree. Once the BS is granted, students will have the same access requirements to regular graduate programs as any other student. However, the combined MS degree would not be available to those who elect to leave the combined program.

Admission into the combined program does not automatically qualify the students for admission into the MS degree program. To enroll in the MS degree program, the students must apply to the graduate school and meet all graduate admission requirements.

The ISE Department encourages students to get practical industry experience via internships or co-ops at their junior and senior level. Credits for internships and co-ops do not count towards the degree.

Minors for Non-ISE Majors

In addition to the Bachelor's of Science degree, the Industrial and Systems Engineering Department offers several minors at the baccalaureate level, for non-majors, in Engineering Management, Human Factors Engineering, Manufacturing Systems Engineering, and Operations Research.

For admission to the minor, students need (1) To be fully admitted to their major; (2) To have a GPA ≥ 2.5.

Industrial and Systems Engineering students are not eligible for these minors. Students are expected to meet all prerequisites for the required courses.

Minor in Engineering Management

The minor requires 18 credit hours consisting of the following courses:

EIN 3354	Engineering Economy	3
EIN 4104	Introduction to Engineering Management	3
EIN 4328	Introduction to Engineering Entrepreneurship	3
EIN 4220	Introduction to Total Quality Management	3
ESI 3314	Generic Models I	3
ESI 4452	Project Management Systems Design	3

Minor in Human Factors Engineering

The minor requires 18 credit hours consisting of the following courses:

EIN 3235	Evaluation of Engineering Data or Equivalent	3
EIN 4314&L	Work Design and Industrial Ergonomics and Lab	3
EIN 4243&L	Human Factors Engineering and Lab	3
EIN 4xxx	Introduction to Usability Engineering	3
EIN 4103	Fundamental of Engineering Regulations	3
EIN 4261	Industrial Hygiene	3
	or	
EIN 4214	Safety Engineering	3

Minor in Manufacturing Systems Engineering

The minor requires 18 credit hours consisting of the following courses:

EGN 3365	Materials in Engineering	3
EIN 3390&L	Manufacturing Processes and Lab	3
EIN 3331	Quality Control	3
EIN 3600&L	Industrial Automation and Lab	3
EIN 4334	Production Planning and Control	3
ESI 3314	Generic Models I	3

Minor in Operations Research

The minor requires 18 credit hours consisting of the following courses:

EIN 3235	Evaluation of Engineering Data or Equivalent	3
EIN 3354	Engineering Economy	3
EIN 4334	Production Planning and Control	3
ESI 3314	Generic Models I	3
ESI 3523&L	Simulation Models of Industrial Systems and Lab	3
ESI 4315	Generic Models II	3

Course Descriptions

Definition of Prefix

EGN - Engineering General; EIN - Engineering: Industrial; ESI - Engineering Systems Industrial.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

EGN 3123 Computer Assisted Drawing and Design (3). Application of computer assisted design technology to product design, feasibility study and production drawing. (F,SS)

EGN 5435 Product Modeling (3). Life cycle product data, geometry and form features, product information models and modeling techniques, product modeling systems, and product data standards. Prerequisites: EGN 3123 or equivalent.

EIN 1396C Basic Industrial Shop and Manufacturing Practices (3). Fundamentals of basic capabilities and requirements for a modern shop or industrial manufacturing facilities. Rudiments of safety requirements, wood technology, metal technology and plastic technology.

EIN 2100 Introduction to Industrial and Systems Engineering (1). A historic review of ISE origins, definition of role, functions and contributions of the IE in industry. Professional development opportunities. Practice communication skills. Seminars.

EIN 3235 Evaluation of Engineering Data I (3). Analysis of industrial data and subsequent characterization of industrial processes. Prerequisite: MAC 2312. (F,S,SS)

EIN 3331 Quality Control (3). Modern concepts for managing the quality function of industry to maximize customer satisfaction at minimum quality cost. The economics of quality, process control, organization, quality improvement, and vendor quality. Prerequisite: EIN 3235. (S,SS)

EIN 3354 Engineering Economy (3). Basic methods of engineering economic analysis including equivalence, value measurement, interest relationships and decision support theory and techniques as applied to capital projects. (F,S,SS)

EIN 3365 Facilities Planning and Materials Handling (3). Application of methods and work measurement principles to the design of work stations. Integration of work stations with storage and material handling systems to optimize productivity. Prerequisites: EGN 3123 and ESI 3321. (F)

EIN 3390 Manufacturing Processes (2). Study of interrelationships among materials, design and processing and their impact on workplace design, productivity and process analysis. Prerequisite: EGN 3365. Corequisite: EIN 3390L. (F,S,SS)

EIN 3390L Manufacturing Processes Laboratory (1). Experiments are conducted using the machines, equipment and tools in the laboratory to provide students with hands-on experience on product design, process planning, fabrication and quality assurance. Corequisite: EIN 3390. (Lab fees assessed). (F,S,SS)

EIN 3600 Industrial Automation (2). Basic concepts of industrial automation and robotics. Performance characteristics, criteria for use, planning, selection, and implementation of computer automated equipment. Open to non-majors. Prerequisite: ESI 3161. Corequisite: EIN 3600L. (F)

EIN 3600L Industrial Automation Lab (1). Experiments in the use of CNC machines and robots demonstrating performance characteristics of CNC equipment and robotic arms. Corequisite: EIN 3600. (Lab fees assessed). (F)

EIN 3949 Industrial Engineering Co-Op (1-3). Entry level work experience as an Industrial Engineering intern. Jointly supervised by IE and industry personnel. Written report required. Student must obtain approval from IE faculty and sign up for course before starting work. Prerequisite: Approval of advisor. (F,S,SS)

EIN 4102 Collective Bargaining in Industrial Systems (3). A comprehensive study of collective bargaining with emphasis upon the private sector. Included will be negotiations and scope of contracts, day-to-day contract administration, and major bargaining issues. Prerequisite: Senior Standing (SS)

EIN 4103 Fundamentals of Engineering Regulation (3). A survey of the legal and regulatory requirements encountered by engineers. Included will be patents, antitrust, safety environmental, compliance, labor laws, product liability and global issues. Prerequisite: Senior standing.

EIN 4104 Introduction to Engineering Management (3). Organization of engineering systems including production and service organizations. Inputs of human skills, capital, technology, and managerial activities to produce useful products and services. Prerequisite: Permission of advisor.

EIN 4116 Industrial Information Systems (3). The integration of information flows and data bases with the production planning and control systems into productive and manageable systems. Prerequisite: Programming language. (S)

EIN 4122 Industrial Marketing (3). The performance of business activity that directs the flow of goods and services from producer to industrial user. Covers new product development, marketing research, sales engineering, pricing, distribution, and promotion. (F)

EIN 4214 Safety in Engineering (3). Introduces occupational safety and health hazards associated with mechanical systems, materials handling, electrical systems, and chemical processes. Illustrates controls through engineering revision, safeguarding, and personal protective equipment. Emphasis placed on recognition, evaluation and control of occupational safety and health hazards. Prerequisites: EIN 4314 or permission of the instructor. (S)

EIN 4220 Introduction to Total Quality Management (3). Fundamentals of TQM and its historical development. Integration of QC and management tools, QFD, Benchmarking for scientific management. Prerequisite: Permission of advisor.

EIN 4243 Human Factors Engineering (2). Examination of the ways to fit jobs and objects better to the nature and capacity of the human being. Lectures will review man's performance capability, singly and in groups, in interacting with his work environment. Stresses the practical

application of human factors principles. Prerequisite: EIN 4314. Corequisite: EIN 4243L. (F)

EIN 4243L Human Factors in Engineering and Design Laboratory (1). Experiments are conducted which measure human factors indicators and differences by age, sex, and race, as well as physiological and anatomical differences. Corequisite: EIN 4243. (Lab fees assessed). (F)

EIN 4261 Industrial Hygiene (3). A continuation of Safety in Industry. An introduction to OSHA regulations on health hazards. Noise, radiation, and dust problems in industry. Special hazards with solvents, asbestos, lead, silica, and other chemicals. OSHA compliance procedures. Prerequisite: Senior standing. (S)

EIN 4314 Work Design and Industrial Ergonomics (2). The analysis, design, and maintenance of work methods. Study of time standards, including Pre-Determined time standards and statistical work sampling. Prerequisites: EGN 3123, EIN 3235 or equivalent. Corequisite: EIN 4314L. (S)

EIN 4314L Work Design and Industrial Ergonomics Laboratory (1). Experiments in the different Work Design techniques including Performance Sampling, Time Studies, Pre-Determined Time Systems and Workplace Design. Corequisite: EIN 4314. (Lab fees assessed). (S)

EIN 4326 Industrial Research and Development (3). Research and development for new product strategies, technological assessment, patent and product liability, and sales engineering. An independent study product will be required by each student. Prerequisite: Senior status.

EIN 4328 Introduction to Engineering Entrepreneurship (3). Fundamentals of engineering entrepreneurship; entrepreneurial process, identification of opportunities, starting and managing the venture, and development of business plans.

EIN 4333 Productivity Planning (3). The improvement of productivity as a functional activity of the enterprise. Productivity definitions, measurement, methodologies, and reporting systems. Prerequisites: EIN 4314, ESI 3161, and statistics.

EIN 4334 Production Planning and Control (3). Production systems, demand forecasting, capacity planning, master production planning, material requirements planning, shop floor control, and assembly line balancing. Prerequisites: EIN 3354 and ESI 3321. (S)

EIN 4351 Introduction to Industrial Financial Decisions (3). Fundamental concepts of industrial financial decisions, financial planning and analysis tools, justification for industrial capital investments, and intermediate and long-term financing options. Prerequisite: EIN 3354.

EIN 4387 Technology Assessment (3). Development of systematic efforts to anticipate impacts on society that may occur when a technology is introduced, extended, or modified. Prerequisites: Senior standing in Engineering, ESI 3161 and Statistics.

EIN 4389 Technological Forecasting (3). Emphasis on forecasting future trends and specific developments in the area of capabilities and needs. Prerequisites: Senior standing in Engineering, and EIN 4334.

EIN 4391 Concurrent Engineering (3). Overview of product and process design. Principles of design for manufacturing. Manufacturability evaluation methods. Computer aided design for manufacturing techniques and strategies. Prerequisites: EIN 3600 and EIN 3390.

EIN 4395 Computer Integrated Manufacturing (3). The integration of computer aided design and computer aided manufacturing. Development of a common data base for design and manufacturing. Developments of flexible manufacturing systems. Prerequisites: EIN 3600 and ESI 3523.

EIN 4440 Introduction to Technology Entrepreneurship (3). An introduction to theories, concepts, and practices of entrepreneurship. Students will produce feasibility analyses, learn to develop and analyze new ventures, and be introduced to business plans.

EIN 4441 Engineering Business Plan Development (3). This course is designed to help students develop an effective implementation plan for a new business venture. Prerequisites: GEB 4113 or EIN 4440.

EIN 4933 Special Topics in Industrial Engineering (2-3). Permits in-depth study in areas relating to specific student interests, recent advances, and problems in industrial technology or systems. Prerequisites: Senior standing, consent of faculty advisor and approval of department chairman.

EIN 4941 Undergraduate Industrial and Systems Engineering Internship (1). To provide undergraduate students with work experience under approved industrial supervision. Prerequisite: Department chairperson's approval.

EIN 4949 Co-op Work Experience (1-3). Practical Co-op work experience under approved industrial supervision. Written report required at the conclusion of the work assignment. Prerequisite: Permission of department chairperson.

EIN 5106 Regulatory Aspects of Engineering (3). A survey of the legal and regulatory requirements encountered by engineers. Included OSH Act, NIOSH, ADA, EEOC, Worker's Compensation and Product Liability. (SS)

EIN 5160 Management of Innovation and Technology (3). The course provides an integrated view of management of technology. The combination of theory and practice addresses the challenges of globalization, time compression, and technology integration. Prerequisite: Permission of instructor.

EIN 5226 Total Quality Management for Engineers (3). Fundamentals of TQM and its historical development. Integration of QC and management tools, QFD, benchmarking, experimental design for scientific management. (F,S)

EIN 5244 Cognitive Engineering (3). Advanced topics in human factors and cognitive engineering. Theoretical aspects of applied situation awareness and decision making, and applications in a variety of engineering domains. Prerequisite: EIN 4243.

EIN 5249 Occupational Biomechanics (3). Study of the theoretical fundamentals for the mechanics of the body.

The link system of the body and kinematic aspects of body movement including applications of biomechanics to work systems. Prerequisities: EIN 4314 Work Design and Industrial Ergonomics or equivalent. (S)

EIN 5256 Usability Engineering (3). The usability aspects of software systems design and testing. The theory of interface design for usability and the methods and techniques for designing and testing technology interfaces. Prerequisite: Permission of Instructor.

EIN 5322 Engineering Management (3). Organization of engineering systems including production and service organizations. Inputs of human skills, capital, technology, and managerial activities to produce useful products and services. (F,S)

EIN 5332 Quality Engineering (3). This course examines quality control from an engineering standpoint. It covers ways to meet the challenge of designing high-quality products and processes at low cost. Prerequisites: EIN 3331 or equivalent. (S)

EIN 5346 Logistics Engineering (3). Concepts and tools for effective design and management of supply chain systems. Includes logistics strategies, inventory management, customer service, supply chain integration and logistics network design. Prerequisite: Consent of Instructor.

EIN 5359 Industrial Financial Decisions (3). The use of financial techniques and data in planning, controlling and coordinating industrial activities. This course will familiarize the student with accounting concepts and analytical methods. Prerequisite: EIN 3354. (SS)

EIN 5367 Design of Production Systems (3). The design of an industrial enterprise including feasibility, plant layout, equipment specifications, auxiliary services, economics and scheduling. Prerequisite: EIN 3365.

EIN 5392 Design and Implementation of Discrete Manufacturing Systems (3). Methodology and techniques for design, planning and implementation of discrete production systems including process/machine selections, material handling and inspection technologies, cell control, etc. Prerequisites: Graduate or seniors with EIN 3365, EIN 3390, and ESI 3523 or equivalent.

EIN 5605 Robotic Assembly Cell (3). Concepts of robot manipulation and sensing, part design for robotic assembly, planning manipulator trajectories, machine vision, robot programming language, cell control, and material transfer. Prerequisite: EIN 3600.

ESI 1622 Introduction to Engineering Software Applications (3). Hands-on experience with software packages such as Autocad, MS Word, Excel, PowerPoint, Access, Windows XP, and industrial applications of the Internet. Prerequisite: High school students in dual enrollment programs.

ESI 3161 Software Tools for ISE (3). Basic concepts of microprocessors; an overview of computer architecture, local area networks, micromainframe linking, and operating systems as they apply to industrial systems.

ESI 3321 Operations Research I: Deterministic Models (3). Modeling principles with emphasis on linear programming and extensions. The simplex procedure and its application through computer software packages. The analysis and interpretation of results in decision making. Prerequisites: MAC 2312, permission of the instructor. (F)

ESI 3523 Simulation Models of Industrial Systems (2). Simulation methodology, design of simulation experiments, implementation of simulation effort through computer software. Application to the solution of industrial and service system problems. Prerequisites: CGS 2423 or equivalent, ESI 3161, ESI 3321 and EIN 3235 or equivalent. Corequisite: ESI 3523L. (S)

ESI 3523L Simulation Models of Industrial System Laboratory (1). Simulation Modeling on a microcomputer. Analyze and validate design models using both a general purpose programming language and a special-purpose simulation language. Corequisite: ESI 3523. (S)

ESI 4244 Evaluation of Engineering Data II (3). Application of statistical analysis in engineering practice, design of engineering experiments, and decision making. Study of prediction, tolerance intervals. Use of computer tools. Prerequisites: EIN 3235 or equivalent.

ESI 4317 Computer Algorithms for Operations Research (3). Discussion and implementation of a collection of computer algorithms essential for the O.R. researcher and consultant. This collection of algorithms includes both deterministic and stochastic models. Computer exercises. Prerequisites: ESI 3321 or equivalent. (S)

ESI 4322 Operations Research II: Stochastic Models (3). Modeling principles with emphasis on applications of Markov Chains, queuing models, systems reliability, Bayesian decision analysis. Prerequisites: ESI 3321, EIN 3235 or equivalent. (S)

ESI 4452 Project Management Systems Design (3). Project planning, scheduling and control using activity network logic. System development techniques and strategies. Prerequisite: Permission of the instructor. (F)

ESI 4554 ISE Systems Design (3). To integrate all prior ISE required courses into a cohesive and consistent professional philosophy. Prerequisite: Permission of instructor. (S)

ESI 4556 Industrial and Systems Engineering in the Office (3). Paperwork reduction, overhead and expense cost containment, and white collar productivity through office automation and systems analysis.

ESI 5522 Simulation Models of Engineering Systems (3). Simulation Methodology; design and implementation of models of engineering systems using computer software; case studies. Prerequisites: STA 3033 or EIN 3235 or equivalent and COP 3175 or equivalent.

ESI 5456 Productivity Management in the Global Organization (3). Analysis of productivity management strategies. Major issues in performance and productivity management, domestic and global outsourcing, international labor standards and trade policies. Prerequisites: EIN 4214 or equivalent.

ESI 5602 Engineering Data Representation and Modeling (3). The course will cover the life cycle of designing, developing, and implementing engineering

database systems by applying the IDEFLx methodology. Prerequisite: Permission of Instructor.

ESI 5603 Advanced Software Tools for ISE (3). Algorithms and principles to integrate heterogeneous tools. Principles of XML, ASP, and other tools. Development of programming projects.

Mechanical and Materials Engineering

George S. Dulikravich, *Chairperson and Professor*
Arvind Agarwal, *Assistant Professor and Graduate Program Director*
Wei-Yu Bao, *Coordinator of Research*
Yiding Cao, *Associate Professor*
Wonbong Choi, *Associate Professor*
M. Ali Ebadian, *Professor*
Dennis Fan, *Assistant Professor*
Gordon Hopkins, *Professor and Dean Emeritus*
W. Kinzy Jones, *Professor and Director, Advanced Materials Engineering Research Institute*
Cesar Levy, *Professor*
Norman Munroe, *Associate Professor and Program Director, Applied Research Center*
Vish Prasad, *Distinguished Professor, Executive Dean, College of Engineering and Computing*
Surenda Saxena, *Professor and Director, Center for the Study of Matter at Extreme Conditions*
Carmen Schenck, *Advisor/Instructor*
Jun Sun, *Instructor*
Ibrahim Tansel, *Associate Professor*
Yong Xin Tao, *Professor and Undergraduate Program Director*
Sabri Tosunoglu, *Associate Professor*
Chunlei (Peggy) Wang, *Assistant Professor*
Kuang Hsi Wu, *Professor*

Mechanical and Materials Engineering Department Mission Statement

The Mechanical and Materials Engineering Department at Florida International University (FIU) offers a curriculum designed to give the student a thorough understanding of the basic laws of science and simultaneously to stimulate and develop creative thinking, a professional attitude, economic judgement and environmental consciousness. The aim is to develop the student's potential to the fullest, to prepare the student for superior performance as a mechanical engineer, and to provide the student with the fundamental principles necessary for pursuing advanced study in the diverse fields of engineering, science and business.

The Mechanical Engineering Program Educational Objectives listed below will graduate students who:

1. Are prepared for professional practice in entry-level engineering positions or to enroll in further engineering degree programs
2. Are prepared for successful careers and possible leadership positions as a result of teaming, communication and problem-solving skills learned in our program
3. At all stages of their careers, will be engaged in activities that demonstrate a commitment to and a desire for ongoing personal and professional growth and learning.

The Program Outcomes listed below have been established based on the Mechanical Engineering Program Educational Objectives. At the time of the graduation, a Mechanical Engineering student should have:

a. Ability to apply knowledge of mathematics including statistics, multivariable calculus and differential equations, science including physics, and engineering
b. Ability to design and conduct experiments, as well as to analyze and interpret data
c. Ability to design a system, component, or process to meet desired needs
d. Ability to function on multi-disciplinary teams
e. Ability to identify, formulate, and solve engineering problems
f. Understanding of professional and ethical responsibility
g. Ability to communicate effectively
h. Broad education necessary to understand the impact of engineering solutions in a global and societal context
i. Recognition of the need for, and an ability to engage in, life long learning
j. Knowledge of contemporary issues
k. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Based on the goals set above the academic program provides a well-balanced curriculum in the following major areas of Mechanical Engineering:

Fluid/Thermal Science
Mechanics and Materials
Design, Robotics and Manufacturing

Further specializations in any of the following areas may be obtained by the proper choice of electives:

Energy Systems
Heating, Ventilation, and Air Conditioning
Mechanics and Material Sciences
Manufacturing
Robotics
Design
Manufacturing and Automation Systems
Robotics and Mechatronics
Mechanical Design
Computer-Aided Engineering
Multidisciplinary Design Optimization
Multidisciplinary Computational Analysis
Finite Element Analysis
Environmental and Waste Management

A Bachelor's degree in Mechanical Engineering provides students with the background suitable for immediate employment in engineering industries, as well as excellent preparation for graduate studies in Engineering, Medicine, Law, or Business Administration.

Bachelor of Science in Mechanical Engineering

Common Prerequisites:

(Math/Science Hours: 32)

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4
MAC 2313	Multivariable Calculus	4
MAP 2302	Differential Equations	3
EGM 3311	Analysis of Engineering Systems	3
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1

Degree Program Hours: 128

The qualifications for admissions to the Department of Mechanical and Materials Engineering are the same as for admission to the School of Engineering.

The academic program is designed to satisfy the criteria outlined by the Accreditation Board for Engineering and Technology (ABET), as well as to meet the State of Florida's articulation policy. Entering freshmen at FIU should seek advisement from the Undergraduate Studies Office as well as from the Mechanical and Materials Engineering Department's office of advisement.

Lower Division Preparation

Lower division requirements include at least 60 hours of pre-engineering credits (see the Undergraduate Studies portion of this catalog for specific requirements). These courses include Calculus I, II, III, Differential Equations, Analysis of Engineering Systems, Chemistry I and Lab, Calculus based Physics I & II and labs. (Introduction to CAD for Mechanical Engineers is a required prerequisite unless previously taken in high school). A minimum grade of a "C" is required in every course of the Mechanical Engineering curriculum. In addition, transfer students, who have not completed their core curriculum at the transfer institution, and FIU Freshman must take the FIU University Core Curriculum Requirements, whose topics also complement the goals and objectives of the College of Engineering and Computing (including economic, environmental, political, and/or social issues. See semester-by-semester sample program for courses that fulfill this requirement). Students must make up any missing prerequisites before they will be allowed to begin taking certain engineering courses (see course listing for required pre/corequisites).

Other Requirements

Students must meet the University Foreign Language Requirement. Students must pass the CLAST or have it waived. Students who enter the university with fewer than 36 semester hours must satisfy a summer residency requirement by taking a minimum of 9 credit hours during the summer semester while at FIU. Students must meet all of the state and university requirements in order to graduate.

The minimum requirements for graduation in Mechanical Engineering consist of two parts: 1) Mathematics, Basic Sciences, Humanities and Social Science requirements, and 2) Engineering Sciences, Engineering Design, Laboratory and Elective requirements.

Mechanical Engineering Curriculum

Engineering Science, Engineering Design, Laboratory and Elective semester credit hour requirements:

EGN 1100	Introduction to Engineering	2
EML 2032	Programming for Mechanical Engineers	3
EML 3036	Simulation Software for Mechanical Engineers	3
EGN 3311	Statics[1]	3
EGN 3321	Dynamics[1]	3
EGN 3365	Materials in Engineering[1]	3
EMA 3702	Mechanics and Material Science[1]	3
EMA 3702L	Mechanics and Materials Science Lab	1
EML 3126	Transport Phenomena[1]	3
EML 3126L	Transport Phenomena Lab	1
EGN 3343	Thermodynamics I[1]	3
EML 3222	System Dynamics	3
EIN 3354	Engineering Economy	3
EML 4140	Heat Transfer	3
EIN 3390	Manufacturing Processes	2
EIN 3390L	Manufacturing Processes Lab	1
EEL 3003	Electrical Engineering I[1]	3
EEL 3111L	Circuits Lab	1
EML 3301L	Instrumentation & Measurement Lab	1
EML 4906L	Mechanical Lab	1
EML 3500	Mechanical Design I	3
EML 4501	Mechanical Design II	3
EML 4706	Design of Thermal and Fluid Systems	3
EML 4804	Introduction to Mechatronics	3
EML 4806	Modeling and Control of Robots	3
EML 4551	Ethics and Design Project Organization[2]	1
EML 4905	Senior Design Project [2]	3
Design Elective[3]		3
Engineering Electives		6

[1]These courses are four contact hours to include a one-hour non-credit tutorial.

[2]The Senior Design Project is taken in two consecutive semesters during the senior year. During the first semester of his/her senior year, the student must register for EML 4551 Ethics and Design Project Organization. The senior project begins during this course. The next semester the student must register for EML 4905 to complete the project.

[3]Approved Design Electives:

EGM 4350	Finite Element Analysis in Mechanical Design	3
EML 4503	Production Machine Modeling and Design	3
EML 4525	Mechanical Design Synthesis and Analysis	3
EML 4535	Mechanical Computer Aided Design	3
EML 4561	Introduction to Electronic Packaging	3
EML 4603	Air Conditioning Design	3
EML 4809	Robot Design	3
EML 5509	Mechanical Design Optimization	3
EML 5519	Fault-Tolerant System Design	3

Students failing to maintain an overall GPA of 2.0 will be placed on probation, suspension, or dismissed from the University.

Students who are dismissed for the first time from the University due to low grades may appeal to the Dean for reinstatement. A second dismissal results in no possibility of reinstatement.

Laboratories

Over and above the laboratory requirements in Physics and Chemistry, the program consists of six semester hours of required Engineering laboratory work. The students are assigned two hours of laboratory work (one hour in Instrumentation and Measurement Lab and one hour in Mechanical Lab) which are specifically devoted to solving design problems using experimental methods. The laboratory experience includes the following areas: Machining, Circuits, Fluid Mechanics, Mechanics of Materials and Materials Testing, Applications in Fluid and Thermal Science, and Instrumentation and Measurement.

The elective areas offer the following additional laboratories: Air Conditioning and Refrigeration, Biomedical Engineering, Material Sciences, Computer-Aided Design, and Computer-Integrated Manufacturing.

Electives

Three concentrations available within the Mechanical Engineering program with some of their elective offerings are listed below.

Fluids/Thermal Sciences and Energy Systems

EGM 4350	Finite Element Analysis in Mechanical Design	3
EML 3450	Energy Systems	3
EML 4419	Propulsion Systems	3
EML 4421	Internal Combustion Engines	3
EML 4525	Mechanical Design Synthesis and Analysis	3
EML 4601	Principles of Refrigerating and Air Conditioning	3
EML 4601L	Refrigeration and A/C Lab	1
EML 4603	Air Conditioning Design	3
EML 4608C	Mechanical Systems in Environmental Control	3
EML 4702	Fluid Dynamics	3
EML 4711	Gas Dynamics	3
EML 4721	Intro to Computational Thermo Fluids	3
EML 5103	Intermediate Thermodynamics	3
EML 5104	Classical Thermodynamics	3
EML 5152	Intermediate Heat Transfer	3
EML 5606C	Advanced Refrigeration and A/C Systems	3
EML 5615C	CAD in Air Conditioning	3
EML 5708	Advanced Design of Thermal and Fluid Systems	3
EML 5709	Intermediate Fluid Mechanics	3

Mechanics, Materials and Design

EGM 4610	Introduction to Continuum Mechanics	3
EGM 4350	Finite Element Analysis in Mechanical Design	3
EGM 5315	Intermediate Analysis of Mechanical Systems	3
EGM 5615	Synthesis of Engineering Mechanics	3
EGN 5367	Industrial Materials and Engineering Design	3
EMA 3066	Polymer Science and Engineering	3
EMA 4121	Physical Metallurgy	3
EMA 4121L	Materials Laboratory	1
EMA 4223	Mechanical Metallurgy	3
EMA 5295	Principles of Composite Materials	3
EMA 5507C	Analytical Techniques of Material Sciences	3
EMA 5935	Advanced Topics in Materials Engineering	3
EML 3301C	Instrumentation	3
EML 4220	Mechanical Vibrations	3
EML 4260	Dynamics of Machinery	3
EML 4525	Mechanical Design Synthesis and Analysis	3
EML 4535	Mechanical Computer-Aided Design	3
EML 4561	Introduction to Electronic Packaging	3
EML 5125	Classical Dynamics	3
EML 5385	Identification Techniques of Mechanical Systems	3
EML 5530	Intermediate CAD/CAE	3
EML 5562	Advanced Electronic Packaging	3

Design, Robotics and Manufacturing

EML 4220	Mechanical Vibrations	3
EML 4535	Mechanical Computer-Aided Design	3
EML 4561	Introduction to Electronic Packaging	3
EML 4809	Robot Design	3
EML 4823	Introduction to Sensors and Signal Processing	3
EML 5562	Advanced Electronic Packaging	3
EML 5808	Control Technology for Robotic Systems	3

Students are required to complete nine credit hours of technical electives, three of which are approved design credits.

Students with special needs may take other elective courses (not listed above) with permission of the Mechanical Engineering Advisor. Students are not restricted to these four concentration areas but may choose courses, with the advisor's consent, that will form a coherent concentration area. Special topics may be counted as an elective.

Mechanical Engineering Program Requirements—Freshman to Senior

First Semester: (17)

MAC 2311	Calculus I	4
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
ENC 1101	Freshman Composition	3
MUH 2116	Evolution of Jazz	3
	or	
TPP 2100	Introduction to Acting	3
	or	
THE 2000	Theatre Appreciation	3
	or	
CRW 2001	Creative Writing	3
	or	
MUH 1011	Music Appreciation	3
EGN 1100	Introduction to Engineering	2
SLS 1501	Freshman Experience Seminar	1

Second Semester: (18)

MAC 2312	Calculus II	4
PHY 2048	Physics I with Calculus	4
PHY 2048L	General Physics I Lab	1
ENC 1102	Literary Analysis	3
EGN 3365	Materials in Eng	3
EGN 1033	Technology, Humans and Society	3

Third Semester: (18)

MAC 2313	Multivariable Calculus	4
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics II Lab	1
EML 2032	Programming for Mechanical Engineers	3
EGN 3311	Statics	3
Humanities with Writing*		3

Fourth Semester: (15)

MAP 2302	Differential Equations	3
EGN 3321	Dynamics	3
EGN 3343	Thermodynamics I	3
EIN 3390	Manufacturing Processes	2
EIN 3390L	Manufacturing Processes Lab	1
Humanities with Writing*		3

Fifth Semester: (18)

EGM 3311	Analysis of Engineering Systems	3
EMA 3702	Mechanics and Materials Science	3
EMA 3702L	Mechanics and Materials Science Lab	1
EML 3126	Transport Phenomena	3
EML 3126L	Transport Phenomena Lab	1
EML 3222	Systems Dynamics	3

EEL 3003	Electrical Engineering I	3
EEL 3111L	Circuits Lab	1

Sixth Semester: (16)

EML 3036	Simulation Software for Mechanical Engineers	3
EML 4140	Heat Transfer	3
EML 3500	Mechanical Design I	3
EML 3301L	Instrumentation and Measurement Lab	1
EIN 3354	Engineering Economy	3
INP 2002	Introductory Industrial/Organization Psychology	3
	or	
ECO 2023	Principles of Microeconomics	3
	or	
ECO 2013	Principles of Macroeconomics	3
	or	
SYG 2010	Social Problems	3
	or	
GEO 2000	Introduction to Geography	3
	or	
INR 2002	Dynamics of World Politics	3

Seventh Semester: (13)

EML 4501	Mechanical Design II	3
EML 4706	Design of Thermal and Fluid Systems	3
EML 4806	Modeling and Control of Robots	3
EML 4551	Ethics and Design Project Organization	1
Engineering Elective		3

Eighth Semester: (13)

EML 4804	Introduction to Mechatronics	3
EML 4906L	Mechanical Lab	1
EML 4905	Senior Design Project	3
Design Elective		3
Engineering Elective		3

*Humanities with Writing: Choose from the following list:

PHI 2600	Introduction to Ethics	3
ARC 2701	History of Architecture	3
HUM 3306	History of Ideas	3
WOH 2001	World Civilization	3
EUH 2030	Western Civilization-Europe in the Modern Era	3
AMH 2002	Modern American Civilization	3

Combined Bachelor's/Master's (BS/MS) Program

Students, who pursue a BS degree and are in their first semester of the senior year, with at least a 3.25 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS/MS program. Students must also submit an on-line application to the University Graduate School for admission to the MS program. Students applying to the combined program are not required to pay the application fee. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of the University Graduate School.

Students enrolled in the program may count up to six credit hours of MME graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. During this combined BS/MS program, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have up to three major semesters to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this three-major-semester post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. Students enrolled in the program may count up to six credit hours of MME graduate courses toward the elective engineering BS requirements as well as toward the MS degree. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the graduate advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Combined BS/MBA Program

Students who pursue a BS degree and are in their first semester of the senior year, with at least a 3.3 GPA on both overall and upper division courses may, upon recommendation from three MME faculty members, apply to the department to enroll in the combined BS/MBA program. Students must also submit an on-line application to the University Graduate School for admission to the MBA program. Students applying to the combined program are not required to pay the application fee. In addition to the admission requirements of the combined BS/MBA program, students must meet all the admission requirements of the University Graduate School and those of the College of Business Administration.

The MBA curriculum at the Chapman Graduate School of business consists of 9 credit hours of pre-core courses, 31 credit hours of core courses, 3 credit hours of professional development seminars, and 12 credit hours of elective courses, for a total of 55 credit hours.

The pre-core of 9 credit hours may be considered for waiver based on prior course work or exemption exams. An evaluation will be conducted at the time of admission to determine eligibility for a wavier by the MBA program graduate advisor.

In addition, students can count up to three MME graduate courses as credits for both the BS electives and the MBA electives, for a total savings of 9 credit hours. The following is a list of eligible MME graduate courses:

EML 5927	Professional Development and Leadership for Mechanical Engineers
EML 5555	Special Projects in Mechanical Engineering Design and Business Development*
EML 6908	Independent Studies*

*These courses should have management, decision making and/or cost estimating components.

The combined BS/MBA program has been designed to be a continuous program. During this combined BS/MBA program, upon completion of all the requirements of the undergraduate program, students will receive their BS degree. Students may also elect to permanently leave the

combined program at any time and earn only the BS degree. Students who elect to leave the combined program and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the 9 credit hours in both the BS and MBA degrees.

For each of the graduate courses counted as credits for both BS and MBA degrees, a minimum grade of "B" is required. Students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility to the program. The students should also meet the MBA program graduate advisor to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Final decision for admission to the MBA program will be made by the University Graduate School upon recommendation by the College of Business Administration. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

Minor in Energy Systems

Fully enrolled non-mechanical engineering undergraduate students, who have at least a junior status with a cumulative FIU Grade Point Average of 2.0 or better, may apply to the Department of Mechanical and Materials Engineering to request a minor in Energy Systems. To earn a minor in Energy Systems students must complete the 16 credit hours work listed below with a minimum grade of "C" in each course.

EGN 3311	Statics[1]	3
EGN 3321	Dynamics[1]	3
EGN 3343	Thermodynamics I[1]	3
EML 3126	Transport Phenomena[1]	3
	and	
EML 3126L	Transport Phenomena Lab[1]	1
EML 4140	Heat Transfer	3

[1]Students who have taken equivalent course/courses will be exempted from taking these courses. However, they need to select courses from the following list to satisfy the minimum requirement of 15 credit hours for the minor:

EML 3101	Thermodynamics II	3
EML 4706	Design of Thermal and Fluid Systems	3
EML 4601	Principles of Refrigerating and Air Conditioning	3
	and	
EML 4601L	Refrigeration and A/C Lab	1
EML 4721	Introduction to Computational Thermo-Fluids	3

Minor in Engineering Science

Fully enrolled non-mechanical engineering undergraduate students, who have at least a junior status with a cumulative FIU Grade Point Average of 2.0 or better, may apply to the Department of Mechanical and Materials Engineering to request a minor in Engineering Science. To earn a minor in Engineering Sciences students must complete the 16 credit hours listed below with a minimum grade of "C" in each course.

EGN 3311	Statics[1]	3
EGN 3321	Dynamics[1]	3
EGN 3365	Materials in Engineering	3
EMA 3702	Mechanics and Materials Science[1]	3
	and	
EMA 3702L	Mechanics and Materials Science Lab[1]	1
	or	
EML 3126	Transport Phenomena[1]	3
EML 3126L	Transport Phenomena Lab[1]	1
EGN 3343	Thermodynamics I[1]	3

[1]Students who have taken equivalent course/courses will be exempt from taking these courses. However, they will need to select courses from the following list to satisfy the minimum requirement of 15 credit hours for the minor:

EML 3222	System Dynamics	3
EML 3500	Mechanical Design I	3
EML 3101	Thermodynamics	3
EML 4140	Heat Transfer	3

Minor in Mechanical Design

Fully enrolled non-mechanical engineering undergraduate students, who have at least a junior status with a cumulative FIU Grade Point Average of 2.0 or better, may apply to the Department of Mechanical and Materials Engineering to request a minor in Mechanical Design. To earn a minor in Mechanical Design students must complete the 16 credit hours work listed below with a minimum grade of "C" in each course.

EGN 3311	Statics[1]	3
EGN 3365	Materials in Engineering[1]	3
EMA 3702	Mechanics and Materials Science	3
	and	
EMA 3702L	Mechanics and Materials Science Lab	1
EML 3500	Mechanical Design I	3
EML 4501	Mechanical Design II	3

[1]Students who have taken equivalent course/courses will be exempted from taking these courses. However, they need to select courses from the following list to satisfy the minimum requirement of 15 credit hours for the minor:

EML 3036	Simulation Software for Mechanical Engineers	3
EGM 4350	Finite Element Analysis in Mechanical Design	3
EML 4804	Introduction to Mechatronics	3
EML 4806	Modeling and Control of Robots	3

Minor in Robotics and Mechatronics

Fully enrolled non-mechanical engineering undergraduate students, who have at least a junior status with a cumulative FIU Grade Point Average of 2.0 or better, may apply to the Department of Mechanical and Materials Engineering to request a minor in Robotics and Mechatronics. To earn a minor in Robotics and Mechatronics students must complete the 16 credit hours work listed below with a minimum grade of "C" in each course.

EGN 3311	Statics[1]	3
EGN 3321	Dynamics[1]	3
EML 3301L	Instrumentation and Measurement Lab	1
EMA 3702	Mechanics and Materials Science[1]	3
EML 4804	Introduction to Mechatronics	3
EML 4806	Modeling and Control of Robots	3

[1]Students who have taken equivalent course/courses will be exempted from taking these courses. However, they need to select courses from the following list to satisfy the minimum requirement of 15 credit hours for the minor:

EML 3036	Simulation Software for Mechanical Engineers	3

EML 4312	Automatic Control Theory	3
EML 4809	Robot Design	3
EML 4535	Mechanical Computer Aided Design	3

Professional Certificate Program

Heating, Ventilating and Air Conditioning Design

Yong X. Tao, *Associate Professor and Coordinator*

This Professional Certificate Program provides both traditional students and practicing professionals with a learning experience that enhances their design capabilities in the HVAC field. The program focuses on both basic engineering science and practical applications of system design. Interested applicants must contact the department chairperson or the coordinator prior to registering for the program.

The Certificate will be awarded to a student who successfully demonstrates competency in:

EGN 3343	Thermodynamics I	3
EIN 3354	Engineering Economy	3
EML 4601	Principles of Refrigerating and Air Conditioning	3
EML 4603	Air Conditioning Design	3
EML 4608C	Mechanical Systems in Environmental Control	3

Some of these courses may require additional prerequisites or permission of the program coordinator.

Course Descriptions

Definition of Prefixes

EAS – Engineering; Aerospace
ECH – Engineering; Chemical
EGM – Engineering; Mechanics
EGN – Engineering; General
EMA – Engineering; Materials
EML – Engineering; Mechanical

EAS 4105 Introduction to Flight Mechanics (3). An introductory level course on the fundamentals of aerospace engineering with emphasis on aerodynamics and airplane performance. Prerequisite: EML 3126.

ECH 3704 Principles of Industrial Electrochemistry (3). This course provides a discussion of the basic principles underlying various electrochemical processes. The emphasis is on theoretical principles involved in plating, refining, winning; aqueous and fused salts, primary, secondary and fuel cells. Prerequisite: CHM 1045.

ECH 4706 Engineering Application of Electrochemistry (3). The application of the electrochemical engineering principles to the analysis of industrial processes. Emphasis is placed on electrolysis in aqueous solutions and in fused salts; electrodeposition, electrowinning, and refining; electrochemical power systems. Prerequisite: CHM 1045.

ECH 4826 Corrosion Control (3). Various forms of corrosion, including pitting, stress, crevice, galvanic and microbial induced corrosion, are presented. The problems of material selection, failure analyses and corrosion control are discussed. Prerequisite: EGN 3365.

EGM 3311 Analysis of Engineering Systems (3). Statistics and probability analysis of materials and fluids experiments, structural and fluid system modeling and analysis using lumped parameters; numerical methods to find solutions. Prerequisites: MAC 2312 and EML 2032.

EGM 3503 Applied Mechanics (3). Statics and dynamics of solids and fluids. Science of engineering materials. Open to non-mechanical engineering students only. Prerequisites: MAC 2312 and PHY 2048.

EGM 4350 Finite Element Analysis in Mechanical Engineering (3). Finite Element Analysis is developed as a means to determine stress and deformation levels as well as temperature and heat flux levels in solids. Application by means of commercial software. Prerequisites: EML 2032, EMA 3702, and EML 4140.

EGM 4521C Material Science I (3). Course provides a more in-depth understanding of principles that determine material properties. Topics include structure, effects of thermodynamics, phase and kinetics on microstructural development. Prerequisite: EGN 3365.

EGM 4522C Materials Science II (3). Mechanical properties of materials, including strengthening plasticity and fracture. Introduction into ceramic and polymer materials systems. Prerequisite: EGN 3365.

EGM 4610 Introduction to Continuum Mechanics (3). Introduction to modern continuum mechanics, mathematical preliminaries, stress and equilibrium, deformations and compatibility, constitutive equations, balance laws, problem solution strategies. Prerequisite: EMA 3702.

EGM 5315 Intermediate Analysis of Mechanical Systems (3). First course at the graduate level in the analysis of mechanical systems. Modeling of the system and analytical and numerical methods of solution of the governing equations will be studied. Fluid and thermodynamic systems will be emphasized in this course. Prerequisites: EGM 3311, MAP 2302, or permission of the instructor.

EGM 5346 Computational Engineering Analysis (3). Application of computational methods to mechanical engineering problems of translational, rotational, control, thermal and fluid systems employing linear/nonlinear system elements. Prerequisites: EML 2032, MAP 2302, EML 3222, or permission of the instructor.

EGM 5354 Finite Element Method Applications in Mechanical Engineering (3). Utilize the finite element method to solve problems in heat transfer, fluid dynamics, diffusion, acoustics, vibrations, and electromagnetism, as well as the coupled interaction of these phenomena. Prerequisites: EML 2032, EMA 3702, and EML 4140.

EGM 5615 Synthesis of Engineering Mechanics (3). Unified approach to the analysis of continuous media using constitutive equations, mechanical behavior of materials and their usefulness in handling failure theories and composite materials. Prerequisites: MAP 2302 or EGM 3311, and EMA 3702.

EGM 5935 Review of Topics in Mechanical Engineering (4). To prepare qualified candidates to take the Mechanical Engineering PE written examination. Reviewed courses include: Thermodynamics, Fluid Mechanics, Mechanics of Materials, Mechanical Design and Heat Transfer.

EGN 1033 Technology, Humans, and Society (3). The course examines the interaction between the technology humans develop and their culture, politics and the quality of life. The foundation for envisioning the appropriate use of technology for a sustainable future is developed.

EGN 1100 Introduction to Engineering (2). This course will provide a broad exposure, "birdseye" view, of the engineering profession to entering freshmen.

EGN 1110C Engineering Drawing (3). Laboratory experiences in the principles and practice of idea development and expression through free hand sketching and conventional instrument drafting. A beginning course for students with no prior drafting experience.

EGN 3311 Statics (3). Forces on particles, and two and three dimensional rigid bodies, equilibrium of forces, moments, couples, centroids, section properties, and load analysis of structures; vector approach is utilized. Prerequisites: MAC 2312 and PHY 2048.

EGN 3321 Dynamics (3). Study of the motion of particles and rigid bodies, conservation of energy and momentum. A vector approach is utilized. Prerequisite: EGN 3311.

EGN 3343 Thermodynamics I (3). Fundamental concepts of basic thermodynamics including first and second law topics, equations of state and general thermodynamic relationships. Prerequisites: MAC 2312, PHY 2048, and CHM 1045.

EGN 3365 Materials in Engineering (3). A study of materials used in engineering. Includes atomic structure phase diagrams and reactions within solid materials. Prerequisites: CHM 1045, MAC 2311 and PHY 2048.

EGN 5367 Industrial Materials and Engineering Design (3). Industrial materials, material selection, and engineering design process, including synthesis, analysis, optimization, and evaluation.

EGN 5990 Fundamentals of Engineering (FE) Exam Review (4). Prepares upper level engineering students to take the Fundamentals of Engineering (FE) State Board Examinations. Reviews Chemistry, Engineering Economics, Statics, Dynamics, Electrical Circuits, Fluid Mechanics, Mechanics of Materials, Material Science and Thermodynamics.

EMA 3066 Polymer Science and Engineering (3). Introduction to molecular structure; property relationships; preparation, processing and applications of macromolecular materials. Prerequisite: EGN 3365.

EMA 3702 Mechanics and Materials Science (3). A mid-level course addressing the selection of engineering materials based on static and dynamic loadings, environmental analysis and the experimental analysis of mechanical systems. Emphasis on metals and composite materials. Prerequisite: EGN 3311.

EMA 3702L Mechanics and Materials Science Lab (1). Introduction to measurements of basic mechanical properties of materials. Experiments including tension, bending, torsion, fatigue, buckling, strain, and stress visualization. Prerequisite: EGN 3311. Corequisite: EMA 3702.

EMA 4121 Physical Metallurgy (3). Correlation of properties; structural, mechanical, and thermal history and service behavior of various metals and their alloys. Prerequisite: EGN 3365.

EMA 4121L Materials Laboratory (1). Laboratory techniques in materials, including metallography, mechanical testing, heat treatment and non-destructive testing techniques. Prerequisite: EGN 3365.

EMA 4223 Mechanical Metallurgy (3). Fundamentals of plastic deformation of crystalline solids: elementary theory of statics and dynamics of dislocations; applications to deformation of single crystals and polycrystals; fracture of metals. Prerequisites: EGN 3365 and EMA 3702.

EMA 5001 Physical Properties of Materials (3). The physical properties of materials, including the influence of structure on properties, thermodynamics of solids and phase transformations and kinetics on microstructural development. Prerequisite: EGM 4521C.

EMA 5015 Introduction to Nanomaterials Engineering (3). The science and engineering of nanomaterials, the fabrication, behavior, and characterization of the nano-size particles and materials. Prerequisites: EGN 3365, EGM 3311.

EMA 5016 Nanoelectronic Materials (3). Course provides an understanding of nanotechnology based on materials engineering. Topics include energy bands in semiconductors, MOSFET scaling, materials processing and other applications. Prerequisite: EGN 3365.

EMA 5017 Nanoparticle Technology (3). An interdisciplinary overview of the nanoparticle engineering. Synthesis of nanoparticles, nanoparticle growth and transport, characterization methods, and applications. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5018 Nanoscale Modeling of Materials (3). Overview of computational nanotechnology. Modeling, simulation and design of nanomaterials. Energy minimization, molecular dynamics and advanced multiscale numerical techniques. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5104 Advanced Mechanical Properties of Materials (3). Advanced treatment of the mechanical behavior of solids; examines crystal plasticity, dislocations, point defects and grain boundaries, creep and fatigue behavior, fracture. Prerequisite: EGM 3311.

EMA 5106 Thermodynamics and Kinetics of Materials (3). Laws of thermodynamics. Entropy and free energy. Diffusion mechanisms. Transition state theory and field effects. Phase diagrams. Nucleation in condensed phases. Crystal growth. Prerequisite: EGN 3343.

EMA 5140 Introduction to Ceramic Materials (3). Synthesis of ceramics, inorganic glasses and their microstructure as related to physical properties. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5295 Principles of Composite Materials (3). The mechanical behavior of composite materials used in the automotive, aircraft and sporting goods industries. Material and laminar properties; design of composites; failure analysis; and environmental effects. Prerequisites: EGM 5615 or permission of the instructor.

EMA 5326 Corrosion Science and Engineering (3). Electrochemical principles of corrosion, methods of

corrosion control and measurement. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5507C Analytical Techniques of Materials Sciences (3). Fundamental theories and techniques of the analytical methods for materials including: X-ray diffraction, scanning and transmission electron microscopy, thermal and surface analysis, and vacuum systems. Prerequisite: EGN 3365.

EMA 5605 Fundamentals of Materials Processing (3). Extraction of materials from the minerals using pyro, hydro and electro techniques. Fundamentals of solidification process. Prerequisites: MSE 4521 or permission of the instructor.

EMA 5646 Ceramic Processing (3). Introduction to the science of ceramic processing, with emphasis on theoretical fundamentals and current state-of-the-art processing. Prerequisite: EMA 5140.

EMA 5935 Advanced Topics in Materials Engineering (3). Topics include thermodynamics of solids, principles of physical metallurgy, including phase transformation and diffusion and analytical methods in materials engineering. Prerequisites: EGN 3343 and EGN 3365.

EMC 5415 Digital Control of Mechanical Systems (3). Discrete modeling of mechanical systems. Digital feedback with emphasis on hydraulic, pneumatic and electro-mechanical devices. Prerequisite: EML 4312.

EML 1051C Introduction to Solar Energy Utilization (3). Solar energy principles, technologies, and applications as source of heat and electricity (Thermal and Photovoltaics); energy analysis, projects/products design and construction, and lab investigation. Prerequisite: High school students in dual enrollment.

EML 1533 Introduction to CAD for Mechanical Engineers (3). Introduction to technical graphical visualization and communication for mechanical design; knowledge and skills to use a software package to create multi-view and 3-D Drawings using ANSI standards.

EML 2030 Software for Mechanical Design (3). Students will use software to develop solid models and a mathematical software package to solve mechanical engineering problems. A programming language will be used to define input parameters. Prerequisites: EGN 1100 or EML 3006. Corequisite: MAC 2313.

EML 2032 Programming for Mechanical Engineers (3). Operation of computers and programming languages for mechanical design. C++ will be used to develop programs for mechanical design problems. Introduction to Visual Basic and Fortran 90 environments.

EML 3006 Concepts of Engineering (2). Provide a broad exposure, "birdseye" view, of the engineering profession to junior and senior transfer students. To be completed within two terms after admission to the ME program.

EML 3036 Simulation Software for Mechanical Engineers (3). Commercial software to reinforce the concepts of stress, deformation, fluid flow, rigid body dynamics, heat transfer and to optimize solid model designs via multi-disciplinary computational analysis. Corequisites: EMA 3702, EGN 3343, and EML 3126.

EML 3101 Thermodynamics II (3). Continuation of Thermodynamics I covering reactive and nonreactive mixtures and various thermodynamic cycles. Prerequisite: EGN 3343.

EML 3126 Transport Phenomena (3). Fundamental principles of transport phenomena: Governing Equations; Compressible Flow. Prerequisites: EGN 3321 or EGN 3343, and MAP 2302 or EGM 3311.

EML 3126L Transport Phenomena Laboratory (1). Experiments illustrating the principles of transport phenomena: wind tunnel, shock tubes, airfoils. Prerequisites: EGM 3311, EGN 3321. Corequisite: EML 3126.

EML 3222 System Dynamics (3). Introduction to modeling of mechanical systems; derivation of system equations and response of fluid, thermal, and vibrational systems. Available solution methods will be discussed. Prerequisites: EGN 3321, EMA 3702, EML 2032.

EML 3262 Kinematics and Mechanism Design (3). Fundamentals of kinematics and mechanism design; study of the mechanisms used in machinery and analysis of their motion. Two and three dimensional analytical and numerical methods of computer application. Design is emphasized. Prerequisites: EGN 3321, EML 2032.

EML 3301C Instrumentation (3). A practical study of common instrumentation techniques. The use of instrumentation and measurement methods to solve problems is emphasized. Prerequisites: EEL 3003 or EEL 3111.

EML 3301L Instrumentation and Measurement Laboratory (1). A practical study of common instrumentation elements and measurement systems used in mechanical and electro-mechanical applications. Prerequisite: EEL 3111L.

EML 3450 Energy Systems (3). Review of theory and engineering aspects of conventional energy conversion systems, fuels and combustion, fossil fuels, and nuclear power plants. Aspects of direct energy conversion. Prerequisite: EML 3101.

EML 3500 Mechanical Design I (3). Design of basic machine members including shafts, springs, belts, clutches, chains, etc. Prerequisites: EGN 3321, EMA 3702, and EGN 3365.

EML 4081 Introduction to Nondestructive Testing and Mechanical Health Monitoring (3). Nondestructive Testing (NDT) and Mechanical Health Monitoring (MHM) techniques will be introduced. Computational methods for interpretation of signals will be discussed. Prerequisite: Permission of the instructor.

EML 4140 Heat Transfer (3). Study of the fundamentals of heat transfer including conduction, convection, and radiation. Computer applications and design problems emphasized. Prerequisites: EML 2032, EGN 3343, EML 3126, and MAP 2302.

EML 4220 Mechanical Vibrations (3). Theory and application of mechanical vibrations. Includes damped and undamped vibrations with one or more degrees of freedom computer methods emphasized Prerequisites: EGN 3321, EMA 3702, and EML 2032.

EML 4246 Tribological Design for Machines and Elements (3). Introduction to friction and wear, analysis of tribological systems, and applications of Tribological Principles to machine and machine element design. Prerequisites: EML 4501 or permission of the instructor.

EML 4260 Dynamics of Machinery (3). Acceleration and force analysis of reciprocating and rotating mechanisms and machines. Dynamic balancing of idealized systems. Torsional and lateral critical speeds of a rotor and self-excited instability. Prerequisite: EML 3262.

EML 4264 Introduction to Vehicle Dynamics (3). Fundamentals of dynamics applied to the study of automotive vehicle performance. Emphasis will be placed on the use of models to evaluate or improve vehicle design. Prerequisite: EGN 3321.

EML 4312 Automatic Control Theory (3). Feedback control systems; stability analysis; graphical methods. Applications with emphasis on hydraulic, pneumatic and electro-mechanical devices. Prerequisites: EGN 3321, MAP 2302, EML 2032.

EML 4410 Combustion Processes (3). Introduction to combustion processes, thermochemistry, chemical kinetics, laminar flame propagation, detonations and explosions, flammability and ignition, applications in IC engines and gas turbines. Prerequisites: EML 3101 and EML 4140.

EML 4419 Propulsion Systems (3). Basics of air breathing and rocket engines used in flight systems, gas turbine and ramjet fundamentals. Introduction to compressor and turbine design. Propulsion performance. Unconventional means of propulsion in space. Prerequisites: EML 3101 and EML 3126.

EML 4421 Internal Combustion Engines (3). Engine types, characteristics and operation. Performance factors, fuel combustion, power cycles. Knock and engine variables. Exhaust emissions. Fuel Metering. Compressors and turbines. Prerequisite: EML 3101.

EML 4501 Mechanical Design II (3). Continuation of design analysis of elementary machine elements, including lubrication bearings, and gearings. Introduction to advanced analysis techniques. Prerequisite: EML 3500.

EML 4503 Production Machine Modeling and Design (3). The modeling of metal removing, forming, and polymer processing operations will be introduced. The design of production machines will be discussed based on the models. Prerequisites: EGN 3365, EMA 3702, and EIN 3390.

EML 4535 Mechanical Computer Aided Design (3). Introduction to the use of computers in the design process. Course emphasizes the use of interactive computing and computer graphics in developing CAD applications. Programming project is required. Prerequisite: EML 2032.

EML 4551 Ethics and Design Project Organization (1). Organization to include problem definition, goals, survey, conceptual and preliminary design, ethics and cost components, social and environmental impact, presentation to enhance communication skills. Corequisites: EML 3101, EGM 3311, EML 3500, and EML 4140.

EML 4561 Introduction to Electronic Packaging (3). Introduction to mechanical packaging of electronic systems. Integrates concepts in mechanical engineering to the packaging of electronic systems, such as hybrid microelectronics. Prerequisites: EEL 3003 or EEL 3111, and EEL 3111L.

EML 4601 Principles of Refrigerating and Air Conditioning (3). Refrigeration cycles. Psycho-metrics. Thermal comfort. Load and energy calculations. Pump and piping design. Fan and air distribution. Heat exchangers design. Refrigeration systems and applications. Prerequisites: EML 3101 or permission of the instructor.

EML 4601L Refrigeration and Air Conditioning Lab (1). Experiments in Air Conditioning and Refrigeration applications. Corequisite: EML 4601.

EML 4603 Air Conditioning Design (3). Mechanical design and optimization of an air conditioning system for a selected application including comfort, industrial applications, building operation and management. Design project required. Prerequisites: EML 3101 and EML 4140 or permission of the instructor.

EML 4608C Mechanical Systems in Environmental Control (3). Analysis of refrigeration, heating and air handling systems. Design of environmental control systems. Prerequisite: EML 3101.

EML 4702 Fluid Dynamics (3). A mid-level course on ideal fluid flow, compressible flow and viscous flow. Analysis and numerical techniques of continuity and Navier-Stokes equation for incompressible and compressible flow. Prerequisite: EML 3126.

EML 4706 Design of Thermal and Fluid Systems (3). Design of thermal and fluid systems and components. Piping networks, duct works. Selection of pumps and fittings. Basic design of heat exchangers, turbomachinery, pumps, and fans. Prerequisites: EML 3101 and EML 4140.

EML 4711 Gas Dynamics (3). Basic equations of motion for the flow of a compressible fluid, isentropic flow, normal and oblique shock waves, linearized flows method of characteristics and supersonic thin-air foil theory. Prerequisites: EML 3126 and EGN 3343.

EML 4721 Introduction to Computational Thermo-Fluids (3). Introduction of numerical methods for compressible and incomprehensible flows and heat transfer. Topics include explicit and implicit schemes, accuracy and stability in different coordinate systems. Prerequisites: EML 2032 (equivalent or permission of the instructor), EGM 3311 (or equivalent), EML 3126. Corequisite: EML 4140.

EML 4804 Introduction to Mechatronics (3). This course will introduce computer controlled precise motion generation in smart machines. Prerequisite: EML 3301L.

EML 4806 Modeling and Control of Robots (3). Robot models in terms of geometric parameters. Kinematic and dynamic modeling of robots. Static and dynamic force equilibrium. Robot programming, control algorithms, simulations. Prerequisite: EML 3262.

EML 4809 Robot Design (3). Robotic arm and mobile platform design including a review of major design

components such as actuators, sensors, and controllers. Computer-based design, analysis and hands-on projects. Prerequisites: EML 4806 or permission of the instructor.

EML 4823 Introduction to Sensors and Signal Processing (3). This course will introduce the basic sensors and signal processing techniques for design and development of smart products. Prerequisite: EML 3301L.

EML 4905 Senior Design Project (3). Project statement, in-depth survey, conceptual and structural design, analysis, statistical and cost analyses, ethical, societal and environmental impact, prototype construction, final presentation. Prerequisites: EML 4551 and permission of the advisor. Corequisites: EML 4501, EML 4706.

EML 4906L Mechanical Lab (1). Experiments with various types of mechanical equipment including engines, fans, boilers, pumps, motions and mechanics. Prerequisites: EGN 3343 and EML 3126.

EML 4911 Undergraduate Research Experience (1-3). Participate in funded research in the areas of nanotechnology, advanced materials, mechanics, mechatronics, robotics, thermal and fluid sciences and computational engineering. Prerequisite: Permission of a faculty advisor.

EML 4920 Introduction to Professional Development and Leadership for Mechanical Engineers (3). Introduction to consequences of engineering, concepts of career management, decision making, leadership and intrapreneuring that enhance the effectiveness of professional engineering practice. Prerequisite: Senior standing in engineering.

EML 4930 Special Topics/Projects (1-3). Individual conferences, assigned readings, and reports on independent investigations selected by the students and professor with approval of advisor.

EML 4949 Co-op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and reports required.

EML 5082 Advanced Nondestructive Testing and Mechanical Health Monitoring (3). Theory and application of Nondestructive Testing (NDT) and Mechanical Health Monitoring (MHM) techniques will be discussed. Automated interpretation of signals and advanced methods will be presented. Prerequisite: Permission of the instructor.

EML 5103 Intermediate Thermo Dynamics (3). Thermodynamic approach to processes and engines; alternative formulations and Legendre transformations; Maxwell relations, first and second order phase transitions. Prerequisite: EML 3101.

EML 5104 Classical Thermodynamics (3). Mathematical analysis of the laws of classical reversible and irreversible thermodynamics. Applications to mechanical, electromagnetic, and chemical systems. Prerequisite: EML 3101.

EML 5125 Classical Dynamics (3). Kinematics of rigid body motion, Eulerian angles, Lagrangian equations of motion, inertia tensor, momental ellipsoid. Rigid-body equations of motion, Euler's equations, force-free motion, polhade and herpolhade, theory of tops and gyroscopes. Variational principles. Hamiltonian equations of motion. Poinsote representation. Prerequisites: MAP 2302 or EGM 3311, and EGN 3321.

EML 5152 Intermediate Heat Transfer (3). Multidimensional neat conduction under steady and transient conditions. Heat, mass and momentum transfer. Radiation heat transfer. Gas radiation. Free and forced convection. Prerequisite: EML 4140.

EML 5385 Identification Techniques of Mechanical Systems (3). FFT, time series analysis and neural networks are introduced. Applications of these techniques are discussed for identification of mechanical structures and machine diagnostics. Prerequisite: EML 4312.

EML 5412 Combustion Processes (3). Introduction to combustion processes, thermochemistry, chemical kinetics, laminar flame propagation, detonations and explosions, flammability and ignition, applications in IC engines and gas turbines. Prerequisites: EML 3101 and EML 4140.

EML 5505 Smart Machine Design and Development (3). Design of independently operating smart electro-mechanical systems (most consumer products) which monitor their environment, give decisions, and create motion. Prerequisites: EML 4312 or permission of the instructor.

EML 5509 Mechanical Design Optimization (3). Finite element analysis and sensitivity analysis combined with numerical optimization techniques to optimize design. Prerequisites: EGM 5354 or permission of the instructor.

EML 5514 Aerodynamics and Flight Mechanics (3). Fundamentals of aerodynamics, definition of aerodynamic shapes, analysis of aerodynamic forces, airplane performance, and flight stability and control. Prerequisites: EGN 3321, EML 3126, EGN 3343.

EML 5519 Fault-Tolerant System Design (3). Fault tolerance in mechanical, manufacturing, computer, and aerospace systems. Basic stages of fault isolation. Fault tolerance measures, architectures, and mechanical system design methodologies. Prerequisite: EML 3500.

EML 5528 Digital Control of Mechanical Systems (3). Discrete modeling of mechanical systems. Digital feedback systems. Computer interface with mechanical systems. Controller design with emphasis on hydraulic, pneumatic and electro-mechanical devices. Prerequisite: Permission of the instructor.

EML 5530 Intermediate Computer-Aided Design/ Computer-Aided Engineering (3). Computer-aided geometrical modeling of spatial mechanical systems. Design criteria and analytical approaches for planer kinematic systems will be emphasized. Prerequisites: EML 4535 or permission of the instructor.

EML 5555 Special Projects in Mechanical Engineering Design and Business Development (3). Mechanical engineering design project that encompasses conceptual and structural design, analysis, and optimization complemented by a study to develop a business venture to produce the designed product. Prerequisites: EML 4501 or equivalent, QMB 6357C, and MAN 6209.

EML 5562 Advanced Electronic Packaging (3). Advanced topics in electronic packaging. Evaluation of first through fourth level assembly. Applications of computer layout design, thermal management and mechanical stability analysis. Prerequisites: EML 4561 or permission of the instructor.

EML 5599 Heat Pipe Theory and Applications (3). Heat pipe theory, heat pipe design and its applications, especially in the areas of energy conversion and conservation. Prerequisites: EML 3101 and EML 4140.

EML 5606C Advanced Refrigeration and Air Conditioning Systems (3). The various methods used in the thermal design and analysis of both refrigeration and heat pump systems are investigated. Various methods of producing heating and cooling are examined including vapor compression, absorption, air cycle, steam jet, thermoelectric, solar heating and cooling systems. Prerequisite: EML 4601.

EML 5615C Computer-Aided Design in Air Conditioning (3). Software will be used to demonstrate heating, ventilating and air conditioning design concepts and sizing equipment & determining performance parameters. Project design is required. Prerequisites: EML 2032 and EML 4601.

EML 5708 Advanced Design of Thermal and Fluid Systems (3). Advanced designs of pumps, compressors, heat exchangers, HVAC systems and thermal and fluid control devices. Prerequisite: EML 4706.

EML 5709 Intermediate Fluid Mechanics (3). Basic concepts and scope of fluid dynamics; non-inertial reference frames. Two-dimensional potential theory. Applications to airfoils. The Navier-Stokes equations; selected exact and approximate equations. Prerequisite: EML 3126.

EML 5748 Boundary Layer Theory (3). Advanced fluid dynamic analysis of the Navier - Stokes equations, using boundary layer assumptions. Focus will be on solutions of thermal and fluid boundary layers. Prerequisite: EML 3126.

EML 5808 Control Technology for Robotic Systems (3). State-space equations of robots. Controller design based on linearization, nonlinearity cancellation, optimal control, adaptive control, and other methods. Stability analysis, performance comparison. Prerequisites: EGN 3321, EML 4312, or equivalent.

EML 5825 Sensors and Applied Machine Intelligence (3). Sensors, signal analysis techniques, and error compensation methods will be introduced for machine intelligence. Prerequisites: EML 4312, EML 4503, or equivalent, or permission of the instructor.

EML 5927 Professional Development and Leadership for Mechanical Engineers (3). Consequences of engineering and concepts for personal career management, decision making leadership, and intrapreneuring that enhance the effectiveness of professional engineering practice. Prerequisite: Senior standing in engineering.

School of Computing and Information Sciences

Yi Deng, *Professor and Dean*
Masoud Milani, *Associate Professor and Associate Dean*
Walid Akache, *Instructor*
David Barton, *Professor*
Toby S. Berk, *Professor Emeritus*
Rafae A. Bhatti, *Assistant Professor*
Miguel Carreira-Perpinan, *Associate Professor*
Shu-Ching Chen, *Associate Professor*
Peter Clarke, *Assistant Professor*
Timothy Downey, *Instructor*
Mbola Fanomezantsoa, *Instructor*
Xudong He, *Professor and Graduate Program Director*
Vagelis Hristidis, *Assistant Professor*
Kip Irvine, *Instructor*
Sam Khalil, *Visiting Instructor*
Bill Kraynek, *Associate Professor*
Tao Li, *Assistant Professor*
Chrsitine Lisetti, *Associate Professor*
Xiaowen Liu, *Assistant Professor*
Patricia McDermott-Wells, *Visiting Instructor*
Sylvia Miner, *Visiting Instructor*
Giri Narasimhan, *Professor*
Jainendra K. Navlakha, *Professor*
Ana Pasztor, *Professor*
Alexander Pelin, *Associate Professor*
Norman Pestaina, *Instructor*
Nagarahan Prabakar, *Associate Professor*
Raju Rangaswami, *Assistant Professor*
Naphtali Rishe, *Professor*
S. Masoud Sadjadi, *Assistant Professor*
Gregory Shaw, *Instructor*
Geoffrey Smith, *Associate Professor*
Joslyn Smith, *Instructor*
Jill Weiss, *Instructor*
Mark A. Weiss, *Professor*

The Bachelor of Science program in Computer Science is accredited by the Computing Accreditation Commission (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – Telephone (410) 347-7700.

The School of Computing and Information Sciences offers both undergraduate and graduate degree programs. The major program and a minor program, are described below.

Bachelor of Science in Computer Science

Degree Program Hours: 120

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, completed MAD 2104 and COP 2210 with a grade of "C" or higher, and must be otherwise acceptable into the program.

As part of the 60 semester hours of lower division course work necessary to enter this upper division major, note the following recommendations or course requirements, or both.

Required Courses

Common Prerequisites

COP 2210	Computer Programming I
MAC 2311	Calculus I
MAC 2312	Calculus II
PHY 2048	Physics with Calculus I
PHY 2048L	General Physics Lab I
PHY 2049	Physics with Calculus II
PHY 2049L	General Physics Lab II

Two additional one-semester courses in natural science; each of these should be a course designed for science or engineering majors. A list of additional approved courses is available through the School of Computing and Information Sciences.

Upper Division Requirements

Two tracks are available in the upper division program. **The Computer Science track** should be followed by the student who intends to continue to graduate study in computer science. **The Software Design and Development track** may be followed by the student who intends to pursue a software engineering career.

Courses Required for the Degree: (both tracks)

Third and Fourth Years

MAD 2104	Discrete Mathematics	3
COM 3110	Business and Professional Communication	3
ENC 3211	Report and Technical Writing	3
COT 3420	Logic for Computer Science	3
MAD 3512	Introduction to Theory of Algorithms	3
STA 3033	Introduction to Probability and Statistics for CS	3
CGS 3092	Professional Ethics & Social Issues in Computer Science	1
COP 3337	Computer Programming II	3
COP 4338	Computer Programming III	3
COP 3402	Fundamentals of Computer Systems	3
COP 3530	Data Structures	3
COP 4555	Survey of Programming Languages	3
COP 4540	Database Management	3
CDA 4101	Structured Computer Organization	3
CEN 4010	Software Engineering I	3
COP 4610	Operating Systems Principles	3

Additional required courses for SDD track

CEN 4015	Software Design and Development Project	3
CEN 4021	Software Engineering II	3

Computer Science Electives

Students from both tracks must complete two courses form Set 1.
In addition, CS-track students must complete one course from Set 2.

Set 1.

COP 4009	Windows Components Technology	3
CIS 4363	Computing and Network Security	3
COP 4225	Advanced Unix Programming	3
COP 4226	Advanced Windows Programming	3
CNT 4513	Data Communications	3
CDA 4400	Computer Hardware Analysis	3
CAP 4710	Principles of Computer Graphics	3
*CEN 4021	Software Engineering II	3

Set 2.

MAD 3305	Graph Theory	3
MAD 3401	Numerical Analysis	3
MAD 4203	Introduction to Combinatorics	3
MHF 4302	Mathematical Logic	3

***CS-track students only**

NOTE: Graduate courses can also be used to satisfy elective requirements. Please see adviser for approval. Graduate courses are subject to graduate fees.

At least 50% of the upper division credits taught by the School must be taken at the University. All required and elective courses must be completed with a grade of "C" or better.

Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Computer Science major: CGS 2060, CGS 3300, CGS 2100, COP 3175, MAC 2233, STA 1013, STA 2023, STA 2122, STA 3123, QMB 3200, ESI 3161.

Accelerated Master of Science in Computer Science

Admission Requirements

1. Current enrollment in the Bachelor's Degree program in Computer Science at FIU.
2. Completed at least 60 credits of coursework.
3. Current GPA must be 3.3 or higher.
4. GRE general test score of 1000 (verbal and quantitative combined), with a minimum quantitative score of 600.
5. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.3 overall on the IELTS is required.
6. Three letters of recommendation.
7. Approval of the Graduate Committee.

General Requirements

The FIU Bachelor's degree in Computer Science must be awarded before the Master's degree.

Coursework:

Required Courses:

Required courses must be completed with an average of "B" or higher, and only one course may receive a grade less than "B-".

CEN 5011	Software Engineering	3
COP 5725	Principles of Database Management Systems	3
COP 5614	Operating Systems	3
COT 5420	Theory of Computation I	3
COT 5407	Introduction to Algorithms	3

Elective:

5 courses selected from the SCIS Graduate Course Offerings.

Overlap:

Up to 4 courses (12 credits) may be used in satisfying both the Bachelor's and Master's degree requirements.

The courses must be regular 5000-level computer science graduate courses intended for graduate majors.

Bachelor of Science in Information Technology

The School of Computing and Information Sciences offers a Bachelor of Science degree in Information Technology. As part of this program students must minor in another discipline.

Degree Requirements

The B.S. in Information Technology degree as a first major requires completion of prerequisite courses and 60 credit hours (20 courses) of required and elective courses as outlined below. At least 50% of the upper division credits taught by the School must be taken at the University. All courses must be completed with a grade of "C" or better.

Prerequisites:

All students must have completed the following courses (or equivalent) prior to starting the Information Technology program.

CGS 2060	Introduction to Microcomputers	3
	or	
CGS 2100	Introduction to Microcomputer Applications for Business	3
COP 2250	Programming in Java	3
MAD 1100	Mathematics Concepts for Information Technology	3
PSY 2020	Introductory Psychology or equivalent	3
MAC 2147	Pre-calculus Mathematics	3
CGS 3092	Professional Ethics and Social Issues in Computer Science	1

Minor in another Discipline

All students must complete a minor in another discipline (15) credits. **Computer Science and Computer Engineering are not accepted as the minor for the other academic discipline.**

Courses Required for the Degree:

All students must complete the following courses.

CGS 3260	Microcomputer Organization	3
CGS 3760	Computer Operating Systems	3
CGS 4283	Applied Computer Networking	3
CGS 4825	Web Site Construction and Management	3
CGS 4366	Information Storage and Retrieval	3
COP 3804	Intermediate Java	3
ENC 3211	Report & Technical Writing	3

Information Technology Electives:

All students must select two areas of concentration. Students must take two courses in each of the selected concentration areas (4 courses). The fifth course might be selected from any available area of concentration. The following areas of concentration are available:

System Administration
Applied Network Administration
Application Development
Databases

Free Electives

All students must complete 3 additional elective courses (9 credits).

Bachelor of Arts in Information Technology

The School of Computing and Information Sciences offers a Bachelor of Arts degree in Information Technology as a second major or as a second Bachelor Degree. This program is open to those students who are enrolled in and

will be completing another bachelor degree program or those who already have a bachelor degree from an accredited institution. Computer Science and Computer Engineering are not accepted as the primary major at this time.

Degree Requirements

The B.A. in Information Technology degree as a second major requires completion of prerequisite courses and 30 credit hours (10 courses) of required and elective courses as outlined below. At least 50% of the upper division credits taught by the School must be taken at the University. All courses must be completed with a grade of "C" or better.

Prerequisites:

All students must have completed the following courses (or equivalent) prior to starting the Information Technology program.

CGS 2060	Introduction to Microcomputers	3
	or	
CGS 2100	Introduction to Microcomputer Applications for Business	3
COP 2250	Programming in Java	3
CGS 3559	Using the Internet	1
MAD 1100	Mathematics Concepts for Information Technology	3

Courses Required for the Degree:

All students must complete the following courses (18 credits).

COP 3804	Intermediate Java	3
CGS 3260	Microcomputer Organization	3
CGS 3760	Computer Operating Systems	3
CGS 4283	Applied Computer Networking	3
CGS 4825	Web Site Construction and Management	3
CGS 4366	Information Storage and Retrieval	3

Information Technology Electives:

All students must complete 2 courses (6 credits) from the following list.

CGS 4365	Knowledge-Based Management Systems	3
COP 3344	Introduction to Using Unix/Linux Systems	3
COP 4005	Windows Programming for IT Majors	3
COP 4009	Windows Components Technology	3
COP 4723	Database Administration	3
COP 4343	Unix System Administration	3

Cognate Electives:

All students must complete 2 additional elective courses (6 credits). Students who are completing their major concurrent with their IT degree must choose their cognate elective courses from a list of designated courses from the department of their primary major. Students who have received their first Bachelor Degree prior to enrolling in the IT program must instead choose an additional two courses from the list of IT elective courses.

Minor in Computer Science

Required Courses

COP 2210	Computer Programming I	4
COP 3402	Fundamentals of Computer Systems	3
COP 3337	Computer Programming II	3

Plus two from the following list: COP 3175, COP 4338, COP 3530, COP 3832, COP 4555, CDA 4101, CDA 4400, CNT 4513, CAP 4710, and MAD 3401. Normally the students from Engineering would choose COP 4338, and either COP 3530 or CDA 4101 and students from the College of Business would choose COP 3175 and one other. If one of the other options is selected, then the student should verify that he or she has the additional prerequisites necessary for the chosen course. At least nine of the 15 credits must be taken at FIU.

Course Description

Definition of Prefixes

CAP-Computer Applications; CDA-Computer Design/Architecture; CIS-Computer Information Systems; CGS-Computer General Studies; COC-Computer Concepts; COP-Computer Programming; COT-Computing Theory.

CAP 4710 Principles of Computer Graphics (3). A first course in algorithms/techniques for image generation devices, geometric transformations/matrics, algorithms for hidden surfaces, ray tracing, advanced rendering. Programming with standard graphics interface. Prerequisites: COP 3337 and MAC 2312. This course will have additional fees.

CAP 4770 Introduction to Data Mining (3). Data mining applications, data preparation, data reduction and various data mining techniques such as association, clustering, classification, anomaly detection. Prerequisite: COP 3530. Corequisite: COP 4540.

CAP 5510C Introduction to Bioinformatics (3). Introduction to bioinformatics; algorithmic, analytical and predictive tools and techniques; programming and visualization tools; machine learning; pattern discovery; analysis of sequence alignments, phylogeny data, gene expression data, and protein structure. Prerequisites: COP 3530, or equivalent and STA 3033 or equivalent.

CAP 5602 Introduction to Artificial Intelligence (3). Presents the basic concepts of AI and their applications to game playing, problem solving, automated reasoning, natural language processing and expert systems. Prerequisite: COP 3530. This course will have additional fees.

CAP 5610 Introduction to Machine Learning (3). Decision trees, Bayesian learning, reinforcement learning as well as theoretical concepts such as inductive bias, the PAC learning, minimum description length principle. Prerequisite: Graduate standing.

CAP 5701 Advanced Computer Graphics (3). Advanced topics in computer graphics: system architecture, interactive techniques, image synthesis, current research areas. Prerequisites: COP 3530 and CAP 3710 or equivalent, or by permission. This course will have additional fees.

CDA 4101 Structured Computer Organization (3). Covers the levels of organization in a computer: Design of memory, buses, ALU, CPU; design of microprogram. Covers virtual memory, I/O, multiple processes, CISC, RISC and parallel architectures. Prerequisites: MAD 2104, COP 3402 and COP 3337. This course will have additional fees.

CDA 4400 Computer Hardware Analysis (3). The study of hardware functions of a basic computer. Topics include

logic elements, arithmetic logic units, control units, memory devices, organization and I/O devices. Prerequisite: CDA 4101.

CEN 2300 Microsoft Windows NT Administration (3). A two-part course covering introduction to Networking and the Windows NT Operating System. This course will cover material that is covered on the Microsoft Certified systems Engineer (MCSE) exam. Prerequisites: CGS 2060, or CGS 2100, or equivalent. This course will have additional fees.

CEN 4010 Software Engineering I (3). Software Process Model, software analysis and specification, software design, testing. Prerequisite: COP 3530. This course will have additional fees.

CEN 4015 Software Design and Development Project (3). Students design, implement, document, and test software systems working in faculty supervised project teams and utilizing knowledge obtained in previous courses. Required for Software Design and Development track. Prerequisite: CEN 4010. This course will have additional fees.

CEN 4021 Software Engineering II (3). Issues underlying the successful development of large scale software projects: Software Architectures; Software Planning and Management; Team Structures; Cost Estimation. Prerequisite: CEN 4010. This course will have additional fees.

CEN 4023 Component-Based Software Development (3). Concept of software components, component models and web services such as WSDL and SOAP. Prerequisites: COP 4338 or COP 4005 or permission of the instructor.

CEN 5011 Advanced Software Engineering (3). This course deals with the design of large scale computer programs. Included are topics dealing with planning design, implementation, validation, metrics, and the management of such software projects. Prerequisite: CEN 4010. This course will have additional fees.

CEN 5064 Software Design (3). Study of object-oriented analysis and design of software systems based on the standard design language UML; case studies. Prerequisite: CEN 5011 – Software Engineering.

CEN 5076 Software Testing (3). Tools and techniques to validate software process artifacts: model validation, software metrics, implementation-based testing, specification-based testing, integration and systems testing. Prerequisites: CEN 4010 or CEN 5011.

CEN 5120 Expert Systems (3). Introduction to expert systems, knowledge representation techniques and construction of expert systems. A project such as the implementation of an expert system in a high level AI-language is required. Prerequisite: COP 3530 or permission of the instructor. This course will have additional fees.

CGS 1920 Introduction to Computing (1). Overview of the computing field to students, research programs and career options.

CGS 2060 Introduction to Microcomputers (3). A hands-on study of microcomputer software packages for applications such as operating system, word processing, spreadsheets, and database management. For students without a technical background. Not acceptable for credit for Computer Science majors.

CGS 2100 Intro to Microcomputer Applications for Business (3). A hands-on study of spreadsheet and database management packages for business students without a technical background. Not acceptable for credit for Computer Science majors.

CGS 2423 C for Engineers (3). A first course in programming geared for engineering and natural science students that describes the syntax and semantics of ANSI C programming language. Includes developing algorithms and writing for problems in engineering and science.

CGS 2518 Computer Data Analysis (3). A hands-on study of how to use a modern spreadsheet program to analyze data, including how to perform queries, summarize data, and solve equations. For non-technical students. Not acceptable for CS students.

CGS 3092 Professional Ethics and Social Issues in Computer Science (1). Ethical, legal, social issues and the responsibility of computer professionals. Codes of conduct, risks and reliability, responsibility, liability, privacy, security, free speech issues. Prerequisite: COP 3337.

CGS 3260 Microcomputer Organization (3). A study of the hardware components of modern microcomputers and their organization. Evaluation and comparison of the various microcomputer systems. Not acceptable for credit for Computer Science Majors. Prerequisite: COP 2250. This course will have additional fees.

CGS 3425 Web-based Programming (3). A programming course in Java with emphasis on web-based applications: Applets; Components; Servlets; Java Beans. Not acceptable for credit for Computer Science majors. Prerequisites: COP 2250 and MAD 1100. This course will have additional fees.

CGS 3559 Using the Internet (1). Internet history and importance. What is available on the Net. Tools such as email, listserves, telnet, ftp, Archie, Veronica, Gopher, netfind, the World Wide Web, Wais, and Mosaic. Nontechnical. Prerequisite: CGS 2060 or equivalent.

CGS 3760 Computer Operating Systems (3). Introduction to fundamental concepts of operating systems and their implementation in UNIX, Windows NT and Windows 95/98. Not acceptable for credit for Computer Science majors. Prerequisite: COP 2250. This course will have additional fees.

CGS 4283 Applied Computer Network (3). Principles of computer network design, operation and management. Network protocols. Network configuration. Network security. Not acceptable for credit for Computer Science majors. Prerequisite: CGS 3760. This course will have additional fees.

CGS 4365 Knowledge-Based Management Systems (3). Introduction to knowledge-based and expert systems. Knowledge acquisition, knowledge representation, and creation of expert system. Not acceptable for credit for Computer Science majors. Prerequisite: CGS 4366. This course will have additional fees.

CGS 4366 Information Storage and Retrieval Concepts (3). Introduction to information management and retrieval concepts. The design and implementation of a relational database using a commercial DBMS. Online information retrieval and manipulation. Not acceptable for credit for Computer Science majors. Prerequisite: COP 3804. This course will have additional fees.

CGS 4825 Website Construction and Management (3). The fundamentals of creating and maintaining a website. Installation and maintenance of a web-server. Techniques for building multimedia interactive web-pages. Not acceptable for credit for Computer Science majors. Prerequisites: COP 3804 or COP 3337; and CGS 3559. This course will have additional fees.

CGS 5166 Introduction to Bioinformatics Tools (2). Introduction to bioinformatics; analytical and predictive tools; practical use of tools for sequence alignments, phylogeny, visualizations, patterns discovery, gene expression analysis, and protein structure. Prerequisite: PCB 6025 or equivalent.

CIS 3900 Independent Study (1-5). Individual conferences, assigned readings, and reports on independent investigations.

CIS 3930 Special Topics (1-5). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 4363 Computing and Network Security (3). Technical study of issues and solutions for computer and network security and privacy. The security problem, encryption and decryption, public key encryption, authentication, operating system security, program security. Prerequisites: CDA 4101 and COP 3337.

CIS 4905 Independent Study (1-20). Individual conferences, assigned readings, and reports on independent investigations.

CIS 4911 Senior Project (3). Students work on faculty supervised projects in teams of up to 5 members to design and implement solutions to problems utilizing knowledge obtained across the spreclum of Computer Science courses. Prerequisite: Permission of the instructor.

CIS 4930 Special Topics (1-3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 5027 Computer Systems Fundamentals (3). Fundamentals concepts of IT Systems: operating systems, networking, distributed systems, platform technologies, web services and human-computer interaction. Covers design principles, algorithms and implementation techniques. Prerequisite: Graduate standing.

CIS 5346 Storage Systems (3). Introduction to storage systems, storage system components, storage architecture, devices, trends and applications, performance, RAID, MEMS and portable storage, file-systems, OS storage management. Prerequisite: Graduate standing.

CIS 5372 Information Assurance (3). Information assurance algorithms and techniques. Security vulnerabilities. Symmetric and public key encryption. Authentication and Kerberos. Key infrastructure and certificate. Mathematical foundations. Prerequisite: Graduate standing.

CIS 5900 Independent Study (1-10). Individual conferences, assigned readings, and reports on independent investigations.

CIS 5910 Project Research (1-6). Advanced undergraduate or master's level research for particular projects. Repeatable. Prerequisite: Permission of Department.

CIS 5931 Special Topics (1-3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CNT 4513 Data Communications (3). Study Computer network models and protocol layers. Topics include: error handling, frames, broadcast networks, channel allocation; network routing algorithms, internetworking, TCP/IP, ATM protocols. Prerequisites: CDA 4101 or (COP 3804 and CGS 4283).

COP 2210 Computer Programming I (4). A first course in computer science that uses a structured programming language to study programming and problem solving on the computer. Includes the design, construction and analysis of programs. Student participation in a closed instructional lab is required. This course will have additional fees.

COP 2250 Programming in Java (3). A first course in programming for IT majors. Syntax and semantics of Java. Classes and Objects. Object oriented program development. Not acceptable for credit for Computer Science majors. This course will have additional fees.

COP 3175 Programming in Visual Basic (3). An introduction to Visual Basic programming with emphasis on Business Applications. Not acceptable for credit for Computer Science majors. Prerequisites: CGS 2100 or CGS 2060. This course will have additional fees.

COP 3337 Computer Programming II (3). An intermediate level course in Object Oriented programming. Topics include primitive types, control structures, strings arrays, objects and classes, data abstraction inheritance polymorphism and an introduction to data structures. Prerequisites: MAD 2104 Discrete Mathematics and COP 2210 Programming I. This course will have additional fees.

COP 3344 Introduction to Using Unix/Linux Systems (3). Techniques of Unix/Linux systems. Basic use, file system structure, process system structure, unix tools (regular expressions, grep, find), simple and complex shell scripts, Xwindows. Not acceptable for credit for Computer Science majors. Prerequisites: COP 2210 or COP 2250 or equivalent. This course will have additional fees.

COP 3402 Fundamentals of Computer Systems (3). Overview of computer systems organization. Data representation. Machine and assembly language programming. Prerequisites: COP 2210 or equivalent. This course will have additional fees.

COP 3465 Data Structures for IT (3). Basic concepts of running time of a program, data structures including lists, stacks, queues, binary search trees, and hash tables, and internal sorting. Not acceptable for credit for CS majors.

Prerequisite: Programming II (IT). This course will have additional fees.

COP 3530 Data Structures (3). Basic concepts of data organization, running time of a program, abstract types, data structures including linked lists, nary trees, sets and graphs, internal sorting. Prerequisites: MAD 2104 and COP 3337. This course will have additional fees.

COP 3804 Intermediate Java Programming (3). A second course in Java programming. Continues Programming in Java by discussing object-oriented programming in a more detail, with larger programming projects and emphasis on inheritance. Not acceptable for credit for CS majors. Prerequisite: COP 2250. This course will have additional fees.

COP 3832 Advanced Web Server Communication (3). Maintain a web server on the Internet. Learn HTML, PERL, Javascript. Configure the Apache web server. Write interactive server scripts. Discuss Web security & ASP. Use Java applets and ActiveX controls. Prerequisites: CGS 3559, COP 2210 or equivalents. This course will have additional fees.

COP 3835 Designing Web Pages (3). Designing basic pages for display on the World Wide Web. Fundamental design elements and contemporary design tools are discussed. Prerequisites: CGS 2060 or equivalent.

COP 3949 Cooperative Education in Computer Science (1-3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervisor evaluation is required of each student. Prerequisites: Calculus II and COP 3337.

COP 4005 Windows Programming for IT Majors (3). Application development techniques in Windows: Visual Basic Classes, Objects, Controls, Forms and Dialogs, Database, Active X and Internet Programming and Enterprise Application Architecture. Not acceptable for credit for CS Majors. Prerequisite: COP 3804 or COP 3337. This course will have additional fees.

COP 4009 Windows Components Technology (3). Component-Based and Distributed Programming Techniques: C#, Common Type System, Windows and Web Forms, Multithreading, Distributed Objects. Prerequisites: COP 4226 or COP 4005. This course will have additional fees.

COP 4225 Advanced Unix Programming (3). Unix overview: files and directories, shell programming. Unix tools: sed, grep, and others. Unix internals: file systems, process structure. Using the system call interface. Interprocess communication. Prerequisite: COP 4338. Corequisite: COP 4610. This course will have additional fees.

COP 4226 Advanced Windows Programming (3). Advanced Windows Programming topics including Object Linking and Embedding (OLE), Open Database Connectivity (ODBC), Memory Management Techniques, Dynamic Link Libraries, Multireaded Programming and Client/Server Applications. Prerequisite: COP 3337. This course will have additional fees.

COP 4338 Computer Programming III (3). Topics include Object-Oriented programming Concepts and Modern Programming Techniques. Prerequisite: COP 3530. This course will have additional fees.

COP 4343 Unix System Administration (3). Techniques of Unix system administration: system configuration and management; user setup, management and accounting; software installation and configuration; network setup, configuration and management. Prerequisite: COP 3344.

COP 4540 Database Management (3). Logical aspects of databases including Relational, Entity-Relationship, and Object-Oriented data models, database design, SQL, relational algebra, tuple calculus, domain calculus, and physical database organization. Prerequisite: COP 3530. This course will have additional fees.

COP 4555 Principles of Programming Languages (3). A comparative study of several programming languages and paradigms. Emphasis is given to design, evaluation and implementation. Programs are written in a few of the languages. Prerequisite: COP 3530 Data Structures. This course will have additional fees.

COP 4610 Operating Systems Principles (3). Operating systems design principles and implementation techniques. Address spaces, system call interface, process/threads, interprocess communication, deadlock, scheduling, memory, virtual memory, I/O, file systems. Prerequisites: CDA 4101 and COP 4338. This course will have additional fees.

COP 4722 Survey of Database Systems (3). Design and management of enterprise systems; concurrency techniques; distributed, object-oriented, spatial, and multimedia databases; databases integration; datawarehousing and datamining; OLAP; XML interchange. Prerequisites: COP 4723 Database Administration or COP 4540 Database Management.

COP 4723 Database Administration (3). Client-server architecture; planning, installation, server configuration; user management; performance optimization; backup, restoration; security configuration; replication management; administrative tasks. Prerequisite: CGS 4366 Information Storage and Retrieval Concepts.

COP 4813 Web Application Programming (3). Creating Web applications with user interfaces, databases, state management, user authentication, error handling, and web services. Prerequisites: CGS 4825 and COP 4005.

COP 4906 Research Experiences in Computer Science (1-3). Participation in ongoing research in the research centers of the school. Prerequisite: Permission of the instructor.

COP 4949 Cooperative Education in Computer Science (1-3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervisor evaluation is required of each student. Prerequisites: MAC 2312, STA 3033 and COP 3337.

COP 5577 Principles of Data Mining (3). Introduction to data mining concepts, knowledge representation, inferring rules, statistical modeling, decision trees, association rules, classification rules, clustering, predictive models, and instance-based learning. Prerequisites: COP 4540 and STA 3033.

COP 5614 Operating Systems (3). Operating systems design principles, algorithms and implementation techniques: process and memory management, disk and I/O systems, communications and security.

COP 5621 Compiler Construction (3). Basic techniques of compilation; scanning; grammars and LL and LR parsing, code generation; symbol table management; optimization. Prerequisites: MAD 3512 and CEN 4010. This course will have additional fees.

COP 5716 Software and Data Modeling (3). Essential software and data modeling methods and techniques such as UML, XML, and ER. Prerequisite: Graduate standing.

COP 5725 Principles of Database Management Systems (3). Overview of Database Systems, Relational Model, Relational Algebra and Relational Calculus; SQL; Database Applications; Storage and Indexing; Query Evaluation; Transaction Management. Selected database topics will also be discussed.

COP 5949 Cooperative Education in Computer Science (1-3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervision evaluation is required of each student. Prerequisite: Graduate Standing.

COT 3420 Logic for Computer Science (3). An introduction to the logical concepts and computational aspects of propositional and predicate logic, as well as to concepts and techniques underlying logic programming, in particular, the computer language Prolog. Prerequisites: COP 3337, and MAD 2104. This course will have additional fees.

COT 5407 Introduction to Algorithms (3). Design of efficient data structures and algorithms; analysis of algorithms and asymptotic time complexity; graph, string, and geometric algorithms; NP-completeness.

COT 5420 Theory of Computation I (3). Abstract models of computation; including finite automata, regular expressions, context-free grammars, pushdown automata, Turing machines. Decidability and indecidability of computational problems Prerequisite: MAD 3512.

College of Engineering and Computing

Executive Dean **Vish Prasad**
Dean, School of Computing and Information Sciences **Yi Deng**
Associate Dean for Academic Programs **L. David Shen**
Associate Dean for Outreach **Gustavo Roig**
Associate Dean for Graduate Studies **Jainendra Navlakha**
Associate Dean, School of Computing and Information Sciences **Masoud Milani**
Director, Division of Corporate and Global Programs **Jainendra Navlakha**
Acting Chairperson, Biomedical Engineering **Anthony McGoron**
Chairperson, Biomedical Engineering **Richard T. Schoephoerster**
Chairperson, Civil and Environmental Engineering **Amir Mirmiran**
Chairperson, Construction Management **Irtishad U. Ahmad**
Chairperson, Electrical and Computer Engineering **Kang Yen**
Chairperson, Industrial and Systems Engineering **Shih-Ming Lee**
Chairperson, Mechanical and Mateials Engineering **George Dulikravich**
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Director, Applied Research Center **Fernando Miralles-Wilhelm**
Director, Bioinformatics Research Group **Giri Narashimhan**
Director, Center for Advanced Distributed Systems Engineering **Xudong He**
Director, Center for Advanced Technology and Education **Malek Adjouadi**
Director, Center for Diversity in Engineering and Computing **Gustavo Roig**
Director, Center for Emerging Technology For Advanced Information Processing and High-Confidence Systems **Yi Deng**
Director, Center for the Study of Matters at Extreme Conditions **Surendra Saxena**
Director, Distributed Multimedia Information Systems Laboratory **Shu-Ching Chen**
Director, Engineering Information Center **Hernan Bormey**
Director, Engineering Manufacturing Center **Shih-Ming Lee**
Director, Florida Engineering Education Delivery System **Mercy Rueda Schott**
Director, Future Aerospcae Science and Technology Center for Cryoelectronics **Grover Larkins**
Director, High Performance Database Research Center **Naphtali Rishe**
Director, International Hurricane Research Center **Stephen Leatherman**
Director, Lehman Center for Transportation Research **L. David Shen**
Director, Telecommunications and Information Technology Institute **Niki Pissinou**
Director, Space Planning **Eugene Farmer**

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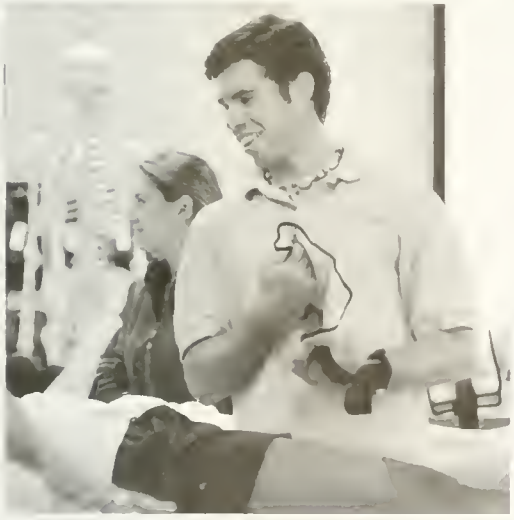
FLORIDA INTERNATIONAL UNIVERSITY



COLLEGE OF

nursing and health sciences

College of Nursing and Health Sciences

Dean	**Divina Grossman**
Associate Dean, Academic Affairs	**Sharon Pontious**
Associate Dean, Administrative Affairs	**Helen Cornely**
Assistant Dean, Student Services	**Marguerite Cooke-William**

Deans, Chairs, and Coordinators:

Communication Sciences and Disorders	**Noma Anderson**
Health Information Management	**Sandra McDonald**
Health Sciences	**Sharon Pontious**
Nursing, Graduate (Interim)	**Sharon Pontious**
Nursing, Undergraduate	**Kathleen Blais**
Nursing, Biscayne Bay Campus	**Paula Delpech**
Occupational Therapy	**Alma Abdel-Moty**
Physical Therapy	**Leonard Elbaum**

The College of Nursing and Health Sciences was created in 2006 by the merger of the School of Nursing and the School of Health Sciences. In support of the University's mission as a major urban research institution, the College offers programs of professional study in selected health professions.

The College offers baccalaureate degrees in Health Sciences, Nursing, and Health Information Management. Master's degrees are offered in Occupational Therapy, Physical Therapy, Communication Sciences, and Nursing, The Doctor of Philosophy is offered in Nursing.

Students interested in the academic programs offered by the College of Nursing and Health Sciences are urged to contact the academic unit for guidance on admissions requirements, curriculum and career planning.

College Policies

Background checks and drug screenings:

The practicum/field placement sites used by some of the programs in the College of Nursing and Health Sciences require the disclosure of conviction records for misdemeanors and/or felonies and current screening for drug use. Therefore, students are often required to submit to criminal background checks and drug screening tests prior to the initiation of the clinical education portion of their education. The student will be responsible for the financial cost of such screenings. Findings in background checks and/or drug screening tests may affect a student's ability to participate in clinical experiences and complete the program, and/or obtain licensure or certification.

Standard disclaimer on policy/procedure changes

The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's and College's various publics and to respond to the mandates of the Florida Department of Education, Board of Governors, the Legislature, and other regulatory and accrediting agencies. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Changes to the Curriculum Requirements

The curricula described in this catalog are continually subject to review in order to respond to the mandates of the Florida Department of Education, Board of Governors, and the Legislature. This is especially true for the programs that are subject to national accreditation requirements. University policy changes in curriculum may be made without advance notice.

Generally, the College of Nursing and Health Sciences makes every effort to minimize the impact of curriculum changes on currently enrolled students by stipulating that students complete the requirements of their degree program in effect at the time of admission or readmission to the program. In the event that this is not possible due to accreditation standards or the deletion of courses, students may be required to complete alternative degree requirements in order to graduate. Students should review their file to ensure that all documentation of changes is noted.

Health Information Management

Sandra McDonald, *RHIA, MHSA Chair*

The major in Health Information Management prepares the student for the variety of responsibilities and functions involved in the management of a health information department. Health Information Managers design and supervise systems relating to the collection, analysis, retention, retrieval and evaluation of health information. The priorities of the position include maintaining complete, accurate and timely medical records, assisting other members of the health care team with information-related needs, and developing and implementing policies, procedures and systems which adhere to ethical, financial, and legal requirements designed to meet the accreditation standards established for the health care facility.

The Health Information Management Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) in cooperation with the American Health Information Management Association's Council on Accreditation. Graduates are eligible to take the National Certification Examination and become a credentialed Registered Health Information Administrator (RHIA) upon the successful completion of this exam.

Bachelor of Science in Health Information Management

Degree Program Hours: 120

Prerequisite Courses

Anatomy and Physiology, Statistics, Accounting I and II, and Introduction to Microcomputers are prerequisites to enroll in certain courses of the required curriculum. All prerequisites should be completed with a passing grade of at least a 'C'.

To qualify for admission to the program, applicants must have met all the lower division requirements including CLAST, completed 60 transferable semester hours with a minimum 2.0 cumulative GPA, and must be otherwise acceptable into the program.

Upper Division Program

Required Courses: (60)

Semester I (13)

HSC 3531	Medical Terminology	3
HIM 3006	Introduction to HIM Profession	3
HIM 3226	Basic ICD-9-CM Coding	3
HIM 3437	Fundamentals of Medical Science I	3
HIM 3806	Directed Practice I	1

Semester II (13)

HSA 4421	Legal Aspects and Legislation in Health Care	3
HIM 3236	Advanced ICD-9-CM Coding	3
HIM 3626	Research Methods in Health Information Management	3
HIM 3438	Fundamentals of Medical Science II	3
HIM 3816	Directed Practice II	1

Semester III (9)

HIM 3306	Introduction to Management in Health Care	3
HIM 4256	CPT-4 Coding and Reimbursement Issues	3
HSA 4192	Health Management and Systems Engineering	3

Semester IV (13)

HSA 4170	Health Care Finance and Accounting Management	3
HIM 3675	Communication Skills for Health Care Professionals	3
HIM 4344	HIM Departmental Systems	3
HIM 4506	Clinical Quality Assessment and Improvement	3
HIM 4837	Directed Practice III	1

Semester V (12)

HIM 4656	Health Information Systems	3
HIM 4676	Problem-Solving Skills in Health Information Management	3
HIM 4406	Multi-Institutional Health Information	3
HIM 4838	Internship in Health Information Management	3

Must earn a minimum grade of 'C' (2.0) in each course. Courses with a grade of 'C-' or below must be repeated.

Course Descriptions

Definition of Prefix

HIM-Health Information Management; HSA - Health Services Administration; HSC- Health Science Concentration.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

HIM 3006 Introduction to HIM Profession (3). Introduces the student to the historical development of health information management and focuses on the work and responsibilities of health information professionals and their relationship with other health care providers. The student will acquire a full understanding of the medical record, including its development, purpose, content, format analysis, value and uses along with the methods used to file and track records. (F)

HIM 3226 Basic ICD-9-CM Coding (3). Concepts and principles of nomenclatures and classification systems used to record and compare health data. Development of ICD-9-CM coding skills and applications for research. Prerequisites: Human anatomy and physiology and medical terminology. (F)

HIM 3236 Advanced ICD-9-CM Coding Procedures (3). Introduction to coding as it relates to DRG system. Record analysis and data quality addressed. CPT, DSM III and current coding issues and regulations presented and discussed. Encoder experience included.

HIM 3306 Introduction to Management in Health Care (3). General principles of management of a health information system in any type of health care facility, including hospitals, intermediate and long term care facilities, clinics, HMO's etc. The basic concepts of management as related to the health care industry are addressed. (SS)

HIM 3437 Fundamentals of Medical Science I (3). Beginning with the cell and progressing through the various organ systems, the conceptual patterns of disease are explored and defined by etiology and the immune and repair responses generated by the body. The diagnostic and treatment modalities for each are studied and identified in the medical record for correlation with coding

procedures. Prerequisites: Human Anatomy and Physiology. (F)

HIM 3438 Fundamentals of Medical Science II (3). A review of body systems to explore the various disease processes and pathological conditions which affect the organs involved. Includes detailed explanations of how the diagnostic work-ups are recorded in the medical record and how to recognize and interpret the significant findings and make intelligent coding decisions. Prerequisites: Human anatomy and physiology. (S)

HIM 3626 Research Methods in Health Information Management (3). This course is designed to introduce students to research concepts and tools. Emphasis is placed on research design and data collection and analysis techniques. Discussion of basic health statistics. Prerequisites: Introduction to Health Information Management, Introduction to Management, Statistics. (S)

HIM 3675 Communication Skills for Health Care Professional (3). This course provides an understanding of process of formal communication for the health care profession. It offers an overview of communication techniques leading to sound decision making and effective team work. It prepares students to formulate and present ideas clearly and persuasively. Prerequisites: Intro to Management, Intro to HIM profession, DPI. (F)

HIM 3806 Directed Practice I (1). Orientation of the student to the hospital health information department and adjunct diagnostic or therapeutic units; including the outpatient department, emergency room, admitting office, x-ray, pharmacy, physical therapy, laboratory, and pathology department. Corequisite: HIM 3006 (F)

HIM 3816 Directed Practice II (1). Orientation of the student to health information department functions. Rotation of the student through technical functions of the department, following the flow of the patient's record after discharge. Includes the discharge procedure, analysis, coding and indexing systems; statistical reporting; correspondence; control of the incomplete medical record; and processing of the completed record. Prerequisites: Directed Practice I, Basic ICD-9-CM Coding, Introduction to Management. Corequisite: HIM 3236 (S)

HIM 4256 CPT-4 Coding and Reimbursement Issues (3). CPT-4/HCPCS coding practices, data collection and outpatient reimbursement issues will be presented and discussed. Prerequisites: Anatomy, Physiology, Medical Terminology, Basic and Advanced ICD-9CM Coding. (SS)

HIM 4344 HIM Departmental Systems (3). Application of management principles to health information systems, including: development of manuals, job descriptions, interviewing and evaluation techniques, forms design, environmental planning etc. External activities assigned. Prerequisites: Introduction to HIM Profession and Introduction to Management, DPI. (F)

HIM 4406 Multi-Institutional Health Information (3). Standards and procedures for long-term, ambulatory care, home health, rehabilitation, psychiatric, dental, hospice, and other health care services are investigated and compared. Prerequisites: Introduction to HIM Profession, Research Methods, Introduction to Management, Quality Assessment.(S)

HIM 4506 Clinical Quality Assessment and Improvement (3). Course is designed to introduce student to quality management techniques. It includes areas of UR, RM, QA, and QI. Role of computers in QA/QI is explored. Prerequisites: Introduction to HIM Profession, Introduction to Management, DPI, DPII, Research Methods. (F)

HIM 4656 Health Information Systems (3). Development of health information systems and applications for evaluation and management of a health information department. Emphasis is on computerization and "hands-on" experience. Prerequisite: Introduction to HIM Profession, Intro to Micro Computers, DPI, DPII, Communication Skills. (S)

HIM 4676 Problem-Solving Skills in Health Information Management (3). Through illustrative case reports, group discussions, role playing, oral reports, lectures, buzz sessions, and review of the literature; students explore effective methods for identifying and arriving at satisfactory solutions to specific types of problems they may expect to encounter in the administration of health information services. Prerequisites: HIM 4506, HIM 4837, HIM 4256. (S)

HIM 4837 Directed Practice III (1). Experience in quality improvement, risk management, and utilization review areas. Clinical experience in acute care and non-acute care facilities. Prerequisite: Directed Practice I, Directed Practice II, Quality Assessment and Improvement, HIM Department Systems. (F)

HIM 4838 Internship in Health Information Management (3). Management experience in a health information department under the supervision of a credentialed Health Information Professional. Emphasis on administrative and medical staff relationships. Prerequisites: DPI, DPII, DPIII. (S)

HIM 4905 Directed Independent Study (1-3). Individual conferences, assigned readings, and reports on investigations related to the Health Informaiton Management profession. (F,S,SS)

HIM 4932 Special Topics (3). Designed to address topics not otherwise offered in the curriculum but specific to or required for health information management. Topics to be announced yearly. (F,S,SS)

HSC 3531 Medical Terminology (3). Provides the student with basic medical language skills including, pronunciation, spelling, and definitions as a foundation for developing the degree of competency required to read and understand medical reports and communicate with physicians and other medical professionals. Prerequisites: Human Anatomy and Physiology. (F,S)

Health Sciences

Sharon Pontious, Ph.D., RN *Professor and Associate Dean of Academic Affairs, College of Nursing and Health Sciences*
Carol Pyles, *Visiting Professor, Health Sciences*

The College of Nursing and Health Sciences offers four tracks in the Bachelor of Science in Health Sciences degree. The general BS in Health Sciences (BSHS) provides an interdisciplinary curriculum designed to prepare students for entry into graduate or professional health related programs such as medicine, dentistry, speech-language pathology, pharmacy, and public health. It also provides career advancement opportunities for health professionals with associate degrees. The BS in Health Sciences/Pre Physical Therapy (BSHS/PT) is a specialized track for students who are intending to apply to a graduate program in Physical Therapy upon completion of their BS degree. The BS in Health Sciences/Pre Occupational Therapy (BSHS/OT) track prepares students for entry into a Master of Science in Occupational Therapy program. The BS in Health Sciences/Pre Athletic Training (BSHS/AT) track prepares students for entry into a Master of Science in Athletic Training program.

Bachelor of Science in Health Sciences

Health Science Track

The BSHS program is specifically designed to meet the needs of students interested in a variety of health related professions. The program combines basic sciences with interdisciplinary health courses and can serve as excellent preparation for students interested in professional programs in medicine, dentistry, pharmacy, physician assistant, speech-language pathology, or public health at the graduate level. Graduates with Associate of Science degrees in fields such as respiratory care, dental hygiene or radiography can also complete their Bachelor's degree in Health Sciences.

Students pursuing the BSHS are required to complete a Health Core and a Multidisciplinary Health Core. The Cores are designed to provide an understanding of the interchange and relationships of the health care practitioner with his/her professional environment. The interdisciplinary nature of the curriculum promotes the concept of teamwork in health care by encouraging students to share their experiences and ideas with classmates from different disciplines. In conjunction with the Cores, students may select 18 credits in an area of concentration to meet their career objectives.

Students must satisfy University entrance requirements and submit a FIU application. The BSHS program can be completed full or part time and can be started any semester.

Degree Program Hours: 120

Lower Division Requirements (60)

Applicants must meet all the lower division requirements for admission to undergraduate programs as established by the State University System of Florida and Florida International University.

Prerequisites (*or approved substitutes) Must earn a grade of 'C' or better.

Human Biology and/or Anatomy with Labs		8*
Chemistry and/or Microbiology with Labs		8*
HUN 2201	Principles of Nutrition	3*
CGS 2060	Introduction to Microcomputers[1]	3*
STA 3145	Statistics for Health Professions	3
	or	
STA 2122	Introduction to Statistics	3*
HSC 2100	Healthy Lifestyles Through Wellness	3*

[1] or pass computer competency test

Upper Division Requirements (60) Must earn a grade of 'C' or better

Health Core (18):

HSC 3002	Introduction to Health Professions	3
HSC 3531	Medical Terminology	3
HSC 3549	Clinical Physiology for Health Professionals	3
HSC 3701	Leadership & Management in Health Science Professions	3
HSC 4553	Fundamentals of Pathology	3
HSC 4910	Introduction to Research Methods	3

Multidisciplinary Health Core (24)

SOW 3801	Self-Awareness and Self-Modification for Practice	3
SYO 3400	Medical Sociology[1]	3
IHS 4111	Values/Ethics & Conflict Resolution[2]	3
URS 3438	Communication Skills for Policy & Mgt[3]	3
HSA 4150	People, Power and Politics in Healthcare	3
HSA 4421	Legal Aspects and Legislation in Healthcare	3
HSA 3103	Health & Social Service Delivery Systems	3
CLP 4314	Psychology of Health and Illness	3

[1] or SYP 3401
[2] or REL 3180 or PHI 4633
[3] or HSA 4190
or CLP 4144, DEP 3115, DEP 3305, DEP 3404, DEP 4032, DEP 4164 or CLP 4464

Concentration/Electives (18)
Students, with the assistance of an advisor, may choose 18 credit hours in a specific concentration such as speech language pathology, nutrition, health services administration, education, **OR** they may select courses to satisfy graduate school prerequisites.

Bachelor of Science in Health Sciences

Pre Physical Therapy Track

The BSHS/PT program is designed for students who ultimately intend to complete a Master's or Doctorate in Physical Therapy. The curriculum includes physical therapy prerequisites and upper division courses which provide a solid foundation for successful completion of a graduate physical therapy program. Completion of the BSHS/PT degree does NOT guarantee admission into the Masters or Doctorate in Physical Therapy Program. Graduates of the BSHS/PT program are not eligible for licensure as a PT or a PTA.

Students must satisfy University entrance requirements and submit a FIU application. The BSHS/PT program can be completed full or part time and can be started any semester.

Lower Division Requirements (60)

Applicants must meet all the lower division requirements for admission to undergraduate programs as established by the State University System of Florida and Florida International University.

Prerequisites (must earn a grade of 'C' or better)

General Chemistry with Labs	8
General Biology with Labs	8
Physics with Labs	8-10
Statistics	3
Psychology	3
Developmental Psychology	3

Upper Division Requirements (60)

HSC 3002	Introduction to Health Science Professions	3
HSC 3531	Medical Terminology	3
HSC 3549	Clinical Physiology for Health Professionals	3
HSC 3701	Leadership and Management in the Health Science Professions	3
HSC 4553	Fundamentals of Pathology	3
HSC 4910	Introduction to Research Methods	3
SYO 3400	Medical Sociology[1]	3
REL 3180	Medical and Bioethics[2]	3
HSC 3661	Comm Theory in CI Practice	3
CLP 4314	Psychology of Health and Illness[3]	3
HSA 4190	Information and Communication Technology	3
ZOO 3731/L	Human Anatomy with Lab	4
PHT 4936	Current Topics in Physical Therapy	3
PHT 4012	Intro to Physical Disability and PT I	3
PHT 4013	Intro to Physical Disability and PT II	3
PHT 5505C	Physical Therapy Constructs of Health	3
Approved Electives		8

[1] or SYP 3401
[2] or REL 3180 or PHI 4633
[3] or CLP 4144, DEP 3115, DEP 3305, DEP 3404, DEP 4032, DEP 4164 or CLP 4464

Course Descriptions

Definition of Prefixes

HSA-Health Services Administration; PHT-Physical Therapy
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

HSA 4190 Information and Communication Technology for Health Professionals (3). This online course assists the student in developing information and communication skills using the Internet. It demonstrates the use of technology in clinical practice, research and education. Prerequisite: CGS 3559.

PHT 4012 Introduction to Physical Disability and Physical Therapy I (3). The first of a two course sequence designed to provide a comprehensive introduction to physical disability and the role of the physical therapist in the management of disability. Prerequisites: Admission to BSHS/ Pre-physical therapy track or permission of the instructor.

PHT 4013 Introduction to Physical Disability and Physical Therapy II (3). The second of a two course sequence designed to provide a comprehensive introduction to physical disability and the role of physical therapist in the management of disability. Prerequisites: Intro to Disability and PT I or permission of the instructor.

Bachelor of Science in Health Sciences

Occupational Therapy Track

In 1999 the American Occupational Therapy Association passed a resolution mandating post baccalaureate entry level education for occupational therapy. As of January 2007 successful completion of a post baccalaureate degree program (MS) will be required in order to qualify an individual to sit for the National Board for Certification in Occupational Therapy (NBCOT) certification examination. The BSHS/OT program prepares students for entry into the MS in Occupational Therapy program. Graduates of the BSHS/OT program with a GPA of 3.0 are eligible for admission to the MSOT program which can be completed in four semesters. The BSHS/OT program is a limited access program that begins only in the Fall semester. Students must submit an application to FIU and directly to the department. Applicants must have a minimum cumulative GPA of 2.8 and completion of all prerequisites prior to starting the program. Applications are accepted beginning January 5 each year. Graduates of the BSHS/OT program are not eligible for licensure as an OT or OTA. Completion of the BSHS/OT degree does NOT guarantee admission into the Masters in Occupational Therapy Program.

For details about the BSHS/OT program see the Occupational Therapy section of this catalog or go to: www.chua2.fiu.edu/healthsciences.

Bachelor of Science in Health Sciences

Pre-Athletic Training Track

THIS SUB-PLAN IS NOT CURRENTLY ACCREDITED.

For more information, go to: www.fiu.edu/~dohertyj. The Pre-Athletic Training curriculum prepares individuals to enter the Master of Science in Athletic Training degree program with the Entry-level professional education sup-plan (approval pending) which prepares students for the Board of Certification (BOC) examination. Students have the opportunity to prepare for an additional examination as a Certified Strength and Conditioning Specialist (CSCS). Students completing the BS in Health Sciences with the Pre-Athletic Training Sub-Plan will be awarded the Bachelor of Science degree (these students will NOT be eligible to sit for the BOC examination). Those students interested in continuing their professional preparation in the Entry-Level professional education sub-plan and earn a Master of Science in Athletic Training degree must apply to the University Graduate School and complete 24 additional graduate credits during one additional academic year. Students completing the combined Bachelor/Master degree program with 144 total credits will be awarded both the BS in Health Sciences and the MS in Athletic Training degrees.

The Entry-Level Graduate Athletic Training Education Program (GATEP) has two options (*Option A* and *Option B*):

Option A - Accelerated Bachelor of Science/Entry-Level Master of Science (5 years total, 144 credits): This option is for entering freshman, transfer students, or

students who change majors in his/her undergraduate degree. *Option A* is for undergraduate students who have been admitted into the College of Nursing and Health Sciences and the BS in Health Sciences plan with the Pre-Athletic Training sub-plan. Following admission into the University Graduate School (upon completion of 90 credits toward the BS degree, during the first semester of the fourth year of study), students are admitted into the MS in Athletic Training plan with the Entry-Level professional education sub-plan. *Option A* is a professional education program with the first two years of full-time study consisting of general education and pre-requisite courses followed by three years of full-time study in the "Pre-Professional" and "Professional" phases. Students pursuing *Option A* will receive Bachelor of Science in Health Sciences (upon completion of 120 credits) and Master of Science in Athletic Training degrees (upon completion of 24 additional credits). Upon completion of 120 credits, students may choose to discontinue study and obtain only the BS in Health Sciences plan with the Pre-Athletic Training sub-plan; however, these students will NOT be eligible for the BOC examination.

Option A Admission Requirements: These students must have completed:

1. Admission to the College of Nursing and Health Sciences with the Pre-Athletic Training sub-plan.
   a. Must have a 3.2 (on a 4.0 scale) cumulative GPA
   b. Must complete the Entry-Level prerequisite courses and earn a grade of "C" or better in the following:
      i. BSC 2023 Human Biology (or BSC 1010 General Biology)
      ii. CHM 1045 General Chemistry
      iii. PET 3325 Anatomy
      iv. PET 3353 Physiology
2. Admission to the Entry-Level GATEP through the competitive-entry process. Refer to Policy and Procedure Manual available on-line at www.fiu.edu/~dohertyj for detailed information regarding program requirements.
3. Admission to the University Graduate School (upon completion of 90 credits toward the BS degree, during the first semester of the fourth year of study) and the MS in Athletic Training plan with the Entry-Level professional education sub-plan.
   a. Apply online at University Graduate School website: http://gradschool.fiu.edu
   b. Must have a 3.2 (on a 4.0 scale) GPA on both overall and upper division courses
   c. No GRE required

Option B - Entry-Level Master of Science (3 years total, 84 credits): This option is for students who have completed their Bachelor degree and the Florida SUS required Athletic Training Pre-requisites. *Option B* is intended for college graduates who have been admitted into the University Graduate School and the MS in Athletic Training plan with the Entry-Level professional education sub-plan. *Option B* is a professional education program consisting of three-years of full-time study in the "Pre-Professional" and "Professional" phases. Students pursuing *Option B* will receive a Master of Science in Athletic Training degree. Please see the Graduate Catalog for a full description of this Program.

General Education Requirements

Prerequisite Classes: 30 credits

Students must complete the following prerequisites with a cumulative 3.0 GPA for admission:

~BSC 2023/L*	Human Biology with Lab	4
~PET 3325/L*	Anatomy for Exercise and Sport Sciences with Lab	4
PHY 2053/L*	Physics without Calculus with Lab	5
HUN 2201*	Introduction to Nutrition	4
~CHM 1045/L*	General Chemistry with Lab	4
~PET 3353/L*	Physiology for Exercise and Sport Sciences with Lab	4
STA 2122*	Introduction to Statistics	3
PSY 2020*	Introductory Psychology	3

~Must earn a grade of "C" or better

*Course meets Florida Center for Advising and Academic Support – Common Prerequisites for Athletic Training

Option A – Accelerated Bachelor of Science/Entry-Level Master of Science (5 years total, 144 credits);
General Education Requirements: 30 UG credits
Prerequisite Classes: 30 UG credits, students must complete the prerequisites and have a cumulative 3.2 GPA for admission (see above)
Pre-Professional and Professional Phases (84 credits): Must maintain a cumulative 3.0 GPA

Option B – Entry-Level Master of Science (3 years total, 84 credits):
Students must complete the prerequisites and have a cumulative 3.2 GPA for admission (see above)
Pre-Professional and Professional Phases (84 credits): Must maintain a cumulative 3.2 GPA

Entry-Level Professional Education Sub-Plan Program of Study (Courses must be taken in prescribed sequence)

Pre-Professional Phase: 13 UG credits

Year I (Option B) or III (Option A)

Fall Semester

PET 4520	Introduction to Clinical Education in Athletic Training	1
HSC 4406	Management of Medical Emergencies	2
PET 4639C	Acute Care and Injury Prevention with Lab	4
PET 4148	Medical Documentation and Pharmacology	3
PET 3310	Kinesiology	3

Required Clinical Experience: 30 hours

Professional Phase: 14 UG and 57 G credits

Spring Semester

PET 4643C	Orthopedic Assessment I – Lower Extremity with Lab	4
PET 4642C	Therapeutic Modalities with Lab	4
PET 4672L	Clinical Education	3
PET 3351	Exercise Physiology	3

Required Clinical Experience: 160 hours

Year II (Option B) or IV (Option A)

Fall Semester

PET 5312C	Orthopedic Assessment II – Upper Extremity with Lab	4
APK 6118C	Rehabilitation Techniques in Athletic Training with Lab	4
PET 5678	Clinical Education II	3

Approved Elective at 5000 level		3
Approved Elective at 5000 level		3
Required Clinical Experience: 160 hours		

Spring Semester

PET 5609	Orthopedic Assessment III – Head, Spine, and Trunk with Lab	4
PET 5624	Intervention and Referral for the Physically Active	3
PET 5672L	Clinical Education III	3
PET 5608	Diseases and Disabilites in the Physically Active	3
PET 5625	Sports Medicine	3

Required Clinical Experience: 160 hours

Graduation Requirements

Option A Graduation Requirements:
The student must complete the required 144 credits, complete 800 clinical education experience hours, and be in compliance with the University Graduate School graduation requirements.

Option B Graduation Requirements:
The student must complete the required 84 credits, complete 800 clinical education experience hours, and be in compliance with the University Graduate School graduation requirements.

Health Sciences Courses

The College of Nursing and Health Sciences offers interdisciplinary courses open to all students in the university. The current courses being offered are:

HSA 4190 Information and Communication Technology for Health Professionals (3). This online course assists the student in developing information and communication skills using the Internet. It demonstrates the use of technology in clinical practice, research and education. Prerequisite: CGS 3559.

HSC 1001C Perspectives of Health Science Professions (3). A study of public health issues, disease, preventive medicine and wellness as they relate to nutrition, physical and occupational therapy. Utilizes lab and field work.

HSC 2100 Healthy Lifestyles through Wellness (3). A survey of wellness issues including preventive health care, substance abuse prevention, stress management, sexually transmitted diseases, psychological illness, nutrition and exercise.

HSC 3002 Introduction to Health Science Professions (3). Introduction to health care delivery in the United States with emphasis on the roles/responsibilities of health care providers. Additional topics include legal, ethical, safety, and wellness issues.

HSC 3531 Medical Terminology (3). Provides the student with basic medical language skills including, pronunciation, spelling, and definitions as a foundation for developing the degree of competency required to read and understand medical reports and communicate with physicians and other medical professionals. Prerequisites: Human Anatomy and Physiology. (F,S)

HSC 3549 Clinical Physiology for Health Professionals (3). An integrated, systems-based approach to the study of human physiology with relevant clinical correlations and case studies. Prerequisites: CHM 1033 or CHM 1045; BSC 2023 or BSC 1010; HSC 3531 or permission of the instructor.

HSC 3579 Wellness of Women (3). Concepts relating to women's health, including sexuality, preventative health care, nutrition, exercise, reproductive diseases and the social/political health care of women.

HSC 3661 Communication Theory and Practice for Health Professions (3). Theory and practice of effective communication for health care professionals. Emphasis on communication between healthcare provider-client; provider-provider; provider-family. Prerequisite: HSC 3002.

HSC 3701 Leadership and Management in Health Science Professions (3). Introduces health sciences profession students to the generic principles of leadership and management for effective and efficient functioning in the health care arena.

HSC 4553 Fundamentals of Pathology (3). Study of human diseases/disorders of the immune, cardiovascular, hematopoietic, central nervous, musculoskeletal, respiratory, urinary/reproductive, gastrointestinal and endocrine systems. Prerequisites: BSC 1010 or BSC 2023, HSC 3549, HSC 3531.

HSC 4905 Health Independent Study (3). Faculty supervised project in health-related topics in association with the student's special interests.

HSC 4910 Introduction to Research Methods in the Health Sciences (3). Introduces the student to the research process in an interdisciplinary, multidisciplinary health sciences environment. Prerequisites: STA 2122, CGS 2060.

Nursing

Grossman, Divina, Ph.D., RN, ARNP, FAAN *Dean and Professor, College of Nursing and Health Sciences*
Anderson, Kathryn, Ph.D., RN, ARNP *Associate Professor, Nursing*
Alexander-Delpech, Paula, MSN, RN, ARNP *Clinical Assistant Professor and Director for Biscayne Bay Campus Programs, Nursing*
Azutillo, Elizabeth, MSN, RN *Visiting Clinical Assistant Professor, Nursing*
Blais, Kathleen, Ed.D., RN *Associate Professor and Director for Undergraduate Programs, Nursing*
Bobo, Charles, JD, MBA, MSN, RN, CCRN *Clincial Assistant Professor, Nursing*
Bogopolskiy, Tatayana, MSN, RN, ARNP *Clinical Assistant Professor, Nursing*
Brooten, Dorothy, Ph.D., RN, FAAN *Professor, Nursing*
Chard, Robin, MSN, RN, CNOR *Clinical Assistant Professor, Nursing*
Conte, Vincent, M.D. *Visiting Clinical Assistant Professor*
Delgardo, Teresita, MSN, RN *Visiting Clinical Assistant Professor, Nursing*
Dyer, Janyce, DNSc, RN, ARNP *Research Professor, Nursing*
Fletcher, Cynthia, Ph.D., RN *Assistant Professor, Nursing*
Friedemann, Marie-Luise, Ph.D., RN *Visiting Professor, Nursing*
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Gillespie-Johnson, Marjorie, Ph.D., RN, ARNP *Assistant Professor, Nursing*
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Granville, Mirta, MSN, RN-BC, ARNP *Clinical Assistant Professor, Nursing*
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Hogan, Gerard, DNS, MSN, RN, CRNA, ARNP *Clinical Assistant Professor, Nursing*
Holder, Heather, MSN, RN, ARNP *Clinical Assistant Professor, Nursing*
Jenkins, Sarah, MSN, RN, ARNP *Instructor, Nursing*
Jones, Sandra, Ph.D., RN, ACRN, ARNP, FAAN *Associate Professor, Nursing*
Jorda, Mary, MPH, RN, ARNP *Instructor, Nursing*
Keane, Florence, DNS, MSN, RN, ARNP *Assistant Professor, Nursing*
Livingstone, Patricia, MN, RN *Clinical Assistant Professor and Clinical Placement Coordinator, Nursing*
Lizardo, Lourdes, Ed.D., RN, ARNP *Clinical Associate Professor, Nursing*
Lobar, Sandra, Ph.D., RN, ARNP *Associate Professor, Nursing*
Menzies, Victoria, Ph.D., RN *Assistant Professor, Nursing*
Parchment, Yvonne, Ed.D., RN-BC, CCRN, ARNP *Clinical Associate Professor, Nursing*
Patsdaughter, Carol, Ph.D., RN *Visiting Clinical Professor, Nursing*
Pestano-Harte, Marilyn, MSN *Clinical Assistant Professor and Assistant Director for Admissions and Student Services, Nursing*
Phillips, Suzanne, Ed.D., RN, ARNP *Associate Professor, Nursing*
Pontious, Sharon, Ph.D., RN *Professor and Associate Dean, College of Nursing and Health Sciences, Interim Director for Graduate Programs, Nursing*
Porter, Luz, Ph.D., RN, ARNP, FAAN *Professor, Nursing*
Pritchard, Barbara, MSN, RN *Visiting Clinical Assistant Professor, Nursing*
Simon, Sharon, MSN, RN *Clinical Assistant Professor, Nursing*
Thomas, Tami, Ph.D., RN, ARNP *Assistant Professor, Nursing*
Viking, Maria, MSN, RN, ARNP *Visiting Clinical Assistant Professor, Nursing*
Youngblut, Jo-Anne, Ph.D., RN, FAAN *Professor, Nursing*

The College of Nursing and Health Sciences offers a professional program of study leading to the degree of Bachelor of Science in Nursing (BSN).

The BSN program is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, New York 10006 (800-669-1656, ext. 153) and is approved by the Florida Board of Nursing (4052 Bald Cypress Way, BIN CO2, Tallahassee, FL 32399, 850-245-4125). The program is open to generic (basic) and RN students. Upon graduation, generic students are eligible to write the NCLEX examination to become registered nurses.

The College of Nursing and Health Sciences also offers a Master of Science degree in Nursing, as well as selected continuing education courses.

Program Objectives

Upon completion of the BSN, graduates will be able to:

1. Synthesize scientific knowledge from nursing and related disciplines in the provision of care to clients within the health-illness continum throughout the life span.
2. Analyze research findings from nursing and from other disciplines to improve or change nursing practice.
3. Analyze nursing theories and concepts from other disciplines as a base for nursing practice.
4. Pro-act to legal, social, political, and economic forces and ethical considerations which impact on the role of the professional nurse and on clients.
5. Collaborate with members of the health care team in the delivery of individualized, economic and ethical health care services with accountability and responsibility for own practice.
6. Utilize creative leadership to promote quality health care in a rapidly changing multicultural, multiethnic, global environment.
7. Practice critical thinking as a lifelong process through independent pursuit of personal and professional growth.
8. Demonstrate clinical competencies in culturally diverse populations in a variety of clinical settings.

Program Policies

Students who enter FIU without an Associate of Arts (AA) degree, transfer from out-of-state, or transfer from a private community college must meet the FIU core curriculum requirements. See a nursing advisor (305) 348-7703 in the Office of Admissions and Student Services for program information.

Nursing majors are responsible for transportation expenses related to clinical experiences. They are required to carry health and accident insurance. To safeguard the health of clients, nursing students are required to submit proof of health examination and immunizations upon entry into the nursing program. Students must submit proof of basic cardiopulmonary resuscitation (CPR) certification (American Heart Association) prior to entering clinical courses in the nursing major. This CPR certification must cover the period of enrollment in the major.

The Florida Board of Nursing and clinical agencies require the disclosure of conviction records for misdemeanors and/or felonies; therefore, this information will be required at the time of application. Applicants are required to submit to criminal background checks and drug testing. Expenses associated with background checks and drug testing (including repeat testing) are the responsibility of the student. Findings may affect a student's ability to participate in clinical experiences and complete the program, and/or obtain registered nurse licensure.

In addition to undergraduate tuition and fees, nursing students are charged a fee of $83/credit for courses with an "L" suffix. The additional fee supports clinical instructional costs, a testing program, and clinical and computer laboratory/ technology supplies and costs.

The College reserves the right to terminate a student from the nursing program for reasons related to the inability to safely carry out professional responsibilities.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's and College's various publics and to respond to the mandates of the Florida Department of Education, Board of Governors, the Legislature, and other regulatory and accrediting agencies. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Bachelor of Science in Nursing (BSN) – Generic

Degree Program Hours: 125

Admission Requirements

Applicants to the nursing major must submit an application for admission to the University and must follow the regular University procedures. Applicants must also complete a nursing major application. Applicants must be admitted to the University before admission to the nursing major.

All admission documents must be submitted and courses must be completed by February 15 of each year preceding the Fall Term admission or June 15 of each year preceding the Spring admission. Students interested in the nursing major should contact the College to make an appointment with the Office of the Director of Admissions and Student Services as early as possible. The College is located on the University Park Campus, (305) 348-7703, call the Biscayne Bay Campus for the Foreign-Educated Physician to BSN track, (305) 919-4421.

The generic BSN track is a limited enrollment program and admission is competitive based on previous academic performance. To be admitted to the program, applicants must have an overall GPA of 3.0 or higher, with no repeats in science courses, have completed science courses within the past 10 years, have met all the lower division requirements including Gordon Rule and CLAST, completed 60 semester hours, have met entry requirements for computation and reading skills (Nurse Entrance Test), and be recommended for admission by the Undergraduate Admissions Committee.

A point system is used for the admission evaluation of applicants to the generic BSN program. The point system is found at http://www.nursing.fiu.edu. Applicants must apply by the published deadline to be considered for admission. Once a class fills, there are no deferred admissions. If an applicant desires to be considered for a subsequent class, he/she must send a letter requesting re-consideration and include a current SASS and transcript.

Lower Division Preparation

Transfer students who have been awarded an Associate of Arts degree from a Florida (public) community college or a baccalaureate degree or higher from an accredited regional institution or FIU core students must successfully complete the following prerequisites for the FIU nursing program:

Course Credits	
Statistics	3
Chemistry & Lab	5
Human Anatomy/Physiology & Labs	8
Microbiology & Lab	4
Human Growth & Development	3
Introduction to Psychology	3
Ethics	3
Nutrition	3

Course Credits		
Freshman Year – First Semester		
ENC 1101	English Comp I	3
MGF 1106	Finite Mathematics	3
MCB 2000	Intro Microbiol/Lab*	4
XXXXX	Hist/Humanities/Writ	3
SLS 1501	First Year Experience	1
Freshman Year – Second Semester		
ENC 1102	English Comp II	3
STA 3145	Statistics	3
CHM 1033	Survey Chem/Lab*	5
NUR 3017	Introduction to the Nursing Profession	3
Sophomore Year – First Semester		
PSY 2020	Intro to Psychology	3
PCB 2099	Human Physio/Lab*	4
COM 3461	Intercultural Comm	3
HUN 2201	Principles of Nutrition	3
Sophomore Year – Second Semester		
DEP 2000	Human Growth/Dev	3
ZOO 3731	Human Anatomy/Lab*	4
XXXXX	Arts Requirement	3
PHI 2600	Introduction to Ethics	3

*Contact departments for course scheduling of sciences.

Scholastic Requirements

To remain in good academic standing students must:

1. Achieve a grade of 'C' or higher in the science and nursing courses. A student who earns less than a 'C' in any nursing course will be required to repeat the course in order to progress in the nursing program. A student may repeat a course one time only. Students who have failed two nursing courses or have two failures in the same nursing course will be dismissed from the program.

2. Pass required examinations: Generic students are required to take specific nursing achievement examinations (To be announced at the beginning of each academic term). In addition, generic students are required to pass a nursing synthesis (exit) exam as a prerequisite to the BSN degree. (This examination is given during the last semester of the program).

Required Nursing Courses

First Semester

NUR 3145	Pharmacologic Basis of Nursing Practice	3
NUR 3065C	Client Assessment	3
NUR 3026C	Foundations of Nursing I: Basic Skills	3

Second (Post Admission) Semester

NUR 3027	Foundations of Nursing II	3
NUR 3027L	Foundations of Nursing II Clinical	6
NUR 3125	Pathophysiologic Basis for Nursing Practice	3
NUR 3165	PN: Research Consumer	3

Third Semester

NUR 3226	Nursing Care of Adults I	3
NUR 3226L	Nursing Care of Adults I Clinical	3
NUR 3535	Psychosocial Nursing	3
NUR 3535L	Psychosocial Nursing Clinical	3

Fourth Semester

NUR 3227	Nursing Care of Adults II	3
NUR 3227L	Nursing Care of Adults II Clinical	3
NUR 4827	Professional Nursing: Leadership	3

Fifth Semester

NUR 4455	Care of Families: Childbearing Nursing	3
NUR 4455L	Care of Families: Childbearing Nursing Clinical	3
NUR 4355	Care of Families: Childrearing Nursing	3
NUR 4355L	Care of Families: Childrearing Nursing Clinical	3

Sixth Semester

NUR 4636	Care of Communities: Community Health Nursing	3
NUR 4286	Nursing Care of Older Adults	3
NUR 4945L	Senior Clinical Practicum	6
NUR 4940	Senior Clinical Synthesis	3

A laboratory fee will be assessed for the following courses: NUR 3027L, NUR 3028L, NUR 3535L, NUR 3225L; NUR 3226L, NUR 3227L, NUR 4355L, NUR 4455L, and NUR 4636L, NUR 4945L.

LPN to BSN Program Track

Admission Requirements

For admission to the LPN-BSN program a student must have the following:

1. Licensure as an LPN/LVN in Florida.
2. Completion of 60 transferable college/university credits including a) Florida mandated Gordon Rule requirements; and b) FIU nursing prerequisites.
3. GPA of 3.0 on all previous college work with no repeats of science courses because of failure.
4. Completion of CLAST.
5. Completion of nursing major application with essay of professional goals.
6. Two letters of recommendation including a) Director of LPN program; and b) Nurse manager at place of current or previous work.
7. Completion of required health history, physical examination, and immunizations.
8. Current BCLS certification.

Curriculum

Semester I

NUR 3065C	Client Assessment	3
NUR 3825	Socialization	3

Validation Exams

Clinical Skills Validation (FIU campus lab)	
Foundations of Nursing (Excelsior College)	4
Adult Nursing (Excelsior College)	10
Maternal Child Nursing (Excelsior College)	12

Semester II

NUR 3081	Transition to Professional Nursing	3
NUR 3xxxL	Transition to Professional Nursing Clinical	6
NUR 3165	PN: Research Consumer	3

Semester III

NUR 3535	Psychosocial Nursing	3
NUR 3535L	Psychosocial Nursing Clinical	3

Semester IV

NUR 4636	Community Health Nursing	3
NUR 4636L	Community Health Nursing Clinical	3
NUR 4827	PN: Leadership	3
NUR 4945L	Senior Clinical Practicum	6

Bachelor of Science in Nursing (BSN) - RN to BSN

Admission Requirements for Undergraduate Transfer:

Degree seeking applicants with fewer than 60 semester hours of transfer credit must satisfy the same admission requirements as beginning freshmen. Graduates of diploma nursing programs who do not have transferable college credit will be required to complete the lower division credit requirements. See a nursing advisor (305) 348-7703 in the Office of Admissions and Student Services for program information.

For admission to the RN-BSN program a student must:

1. Be licensed by the State of Florida as a Registered Nurse (RN).
2. Have achieved passing scores on the CLAST or be exempted from the CLAST through academic performance in selected courses.
3. Complete a) Florida mandated Gordon Rule requirements; and b) nursing major prerequisites.
4. Have completed at least 60 transferable credits of academic course work with a GPA of at least 2.0 from a regionally accredited college or university.
5. Have completed the required equivalency examinations with a grade of C or better.
6. International students must submit a minimum score of 500 on the Test of English as a Foreign Language (TOEFL).

7. See Generic BSN for policies related to background checks and drug testing.

Advanced Placement and Progression of RNs

Each applicant's educational record is individually evaluated by the nursing unit. To progress through the curriculum, the RN must successfully complete prerequisite, corequisite and required courses recommended in the curriculum plan in effect upon admission. Transition to Professional Nursing, Client Assessment, and PN I: Socialization, may be taken while completing prerequisites. Advanced placement in both nursing and non-nursing courses is facilitated by earning credits through examination, i.e., challenge or equivalency exams such as CLEP or Excelsior College. Any RN student may elect to complete a course by matriculation in the nursing course rather than taking the challenge examination. RNs must have one year clinical nursing experience prior to taking NUR 4636, NUR 4636L, and NUR 4945L. It is possible to complete the nursing sequence in one year of full-time study after all prerequisites and challenge courses have been completed and the RN has been fully admitted to the program.

Advanced Placement and Progression of RNs by Matriculation and/or Equivalency Examination (E.E.)

The BSN degree requires 125 semester hours of credit for completion. In addition to 60 transferable lower division semester hour credits, the degree requirements include a 27 semester-hour core, a 30 semester-hour clinical proficiency evaluation (completed by equivalency exams), 3 semester hours of statistics, 8-10 semester hours of a foreign language and 5 semester hours of electives.

Students must complete 33 upper division credits of which 30 credits must have been taken at FIU. Students must complete CLAST and Equivalency Exams prior to enrollment in level IV courses.

Curriculum

Level I:

NUR 3081	Transition to Professional Nursing	3
NUR 3065C	Client Assessment	3
NUR 3825	P.N. I: Socialization	3

Level II:

STA xxxx	Statistics	3
NUR 4827	PN: Leadership	3
NUR3226/3227	Adult Physiological Nursing (E.E.)	12
NUR 3535	Psychosocial Nursing (E.E.)	6
NUR 4355	Childrearing (E.E.)	6
NUR 4455	Childbearing (E.E.)	6

Level III:

NUR 3165	PN: Research Consumer	3

Level IV:

NUR 4636	Community Health Nursing	3
NUR 4636L	Community Health Clinical	3
NUR 4945L	Senior Clinical Practicum	6
Total number of credits earned by equivalency examination (E.E.)		30

See University catalog/nursing advisor for pre-and-co-requisite courses.

Course Descriptions

Definition of Prefixes

NUR - Nursing Practice and Theory
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

NUR 3017 Introduction to the Nursing Profession (3). Introduction to the nursing profession including historical, legal, ethical, and theoretical foundations of nursing. Professional standards and roles as part of the interdisciplinary health care team.

NUR 3026C Foundations of Nursing I: Basic Clinical Skills (3). Theoretical instruction and campus laboratory practical experience in the implementation of basic clinical nursing skills essential for professional nursing practice. Prerequisites: Admission to Nursing Pre-Major, NUR 3017. Corequisites: NUR 3065C, NUR 3145.

NUR 3027 Foundations of Nursing II (3). Introduction to the nursing process in assisting individual clients with adaptation to potential and actual stressors. Prerequisites: Admission to Nursing Major, NUR 3026C, NUR 3065C, NUR 3145. Corequisites: NUR 3027L, NUR 3125.

NUR 3027L Foundations of Nursing II Clinical (6). In the clinical setting, the nursing process is applied in assisting individual clients with adaptation to potential and actual stressors. Prerequisites: Admission to Nursing Major, NUR 3026C, NUR 3065C, NUR 3145. Corequisites: NUR 3027, NUR 3125.

NUR 3028L Approaches to Nursing IA: Foundations of Nursing Clinical (6). In the clinical area, the nursing process is applied in assisting individuals with adaptation to potential and actual stressors which impact basic needs. Prerequisite: Admission to major. Corequisite: NUR 3029. (F,S)

NUR 3029 Approaches to Nursing IA: Foundations of Nursing (4). Introduction to the nursing process in assisting individuals with adaptation to potential and actual stressors which impact basic needs. Prerequisite: Admission to major. Corequisite: NUR 3028L. (F,S)

NUR 3065C Client Assessment (3). The assessment and evaluation of physiological and psychosocial stressors of the individual as client is emphasized. Prerequisites: Admission to Nursing Pre-major, NUR 3017. Corequisites: NUR 3145, NUR 3026C. (F,S,SS)

NUR 3081 Transition to Professional Nursing (3). The role of the professional nurse is explored in applying the nursing process in assisting individuals and/or families with adaptation to potential and actual stressors. Prerequisite: Florida RN license. (F,S,SS)

NUR 3125 Pathophysiologic Basis for Nursing Practice (3). The body's adaptive responses to selected physiological stressors are presented as a basis for nursing assessment, analysis/diagnosis, planning, implementation, and evaluation. Prerequisites: Admission to Nursing Major, NUR 3026C, NUR 3145, NUR 3065C. Corequisites: NUR 3027, NUR 3027L. (F,S)

NUR 3145 Pharmacologic Basis for Nursing Practice (3). The body's adaptive responses to selected pharmacological agents are presented as a basis for assessment, analysis/nursing diagnosis, planning,

implementation, and evaluation. Prerequisites: Admission to Nursing Pre-Major, NUR 3017. Corequisites: NUR 3026C, NUR 3065C. (F,S)

NUR 3165 Professional Nursing: Research Consumer (3). Interrelationship of problems solving, decision making, change and the nursing process are explored in identifying the role of the professional nurse as research consumer. Prerequisites: Statistics course, NUR 3017. (F,S,SS)

NUR 3192C Emergency Measures in Selected Health Crises (1). Emergency measures in selected health crises using CPR and preventive techniques. Prerequisite: Permission of the instructor.

NUR 3225 Approaches to Nursing IIA: Adult/Gerontological Physiological Nursing (4). The nursing process is applied in assisting adult/gerontological clients with adaptation to potential and actual physiological stressors. Prerequisites: NUR 3029, NUR 3028L. Corequisites: NUR 3225L, NUR 3145, NUR 3125. (F,S)

NUR 3225L Approaches to Nursing IIA: Adult/ Gerontological Physiological Nursing Clinical (6). In the clinical area, the nursing process is applied in assisting adult/gerontological clients with adaptation to potential and actual physiological stressors. Prerequisites: NUR 3029, NUR 3028L. Corequisites: NUR 3225, NUR 3145, NUR 3125. (F,S)

NUR 3226 Nursing Care of Adults I (3). First of two courses in adult health nursing. The nursing process is applied in assisting adult clients with adaptation to potential and actual physiological stressors. Prerequisites: NUR 3027, NUR 3027L, NUR 3125. Corequisite: NUR 3226L.

NUR 3226L Nursing Care of Adults I Clinical (3). First of two clinical courses in adult health nursing. In clinical settings, the nursing process is applied in assisting adult clients with adaptation to potential and actual physiological stressors. Prerequisites: NUR 3027, NUR 3027L, NUR 3125. Corequisite: NUR 3226.

NUR 3227 Nursing Care of Adults II (3). This course is a continuation of Nursing Care of Adults I. The nursing process is applied in assisting adult clients with adaptation to potential and actual physiological stressors. Prerequisites: NUR 3226, NUR 3226L. Corequisite: NUR 3227L.

NUR 3227L Nursing Care of Adults II Clinical (3). This course is a continuation of Nursing Care of Adults I. In clinical settings, the nursing process is applied in assisting adult clients with adaptation to potential and actual physiological stressors. Prerequisites: NUR 3226, NUR 3226L. Corequisite: NUR 3227.

NUR 3535 Psychosocial Nursing (3). The nursing process is applied in assisting individuals with adaptation to potential and actual psychosocial stressors. Prerequisites: NUR 3027, NUR 3027L, NUR 3125. Corequisite: NUR 3535L

NUR 3535L Psychosocial Nursing Clinical (3). In the clinical setting, the nursing process is applied in assisting individuals with adaptation to potential and actual psychosocial stressors. Prerequisites: NUR 3027, NUR 3027, NUR 3125. Corequisite: NUR 3535.

NUR 3596 Crisis Intervention and Nursing (3). This course examines the crisis state, what it is, when it occurs and how the nurse can aid the individual, family or group in crisis.

NUR 3825 Professional Nursing I: Socialization (3). Socialization into the role of professional nursing is introduced with emphasis on responsibilities as a direct care provider, teacher learner, and collaborator. Prerequisite: Admission to major. (F,S,SS)

NUR 4040 Transcultural Issues and the Nurse (2). The course is designed to guide the student into direct relationships with individuals of ethnic and racial differences, and to facilitate the development of a therapeutic relationship.

NUR 4178 Complementary and Alternative Therapies in Nursing and Healthcare (3). Provides the theory, practice and patterns of use in complementary and alternative practices and products (CAPPs). Integrates CAPPs knowledge with conventional healthcare using National Institutes of Health NCCAM framework. Prerequisite: Permission of the instructor.

NUR 4286 Nursing Care of Older Adults (3). Discussion of issues and trends in care of older adults. The nursing process is applied in assisting older adults with adaptation to physiological and psychosocial stressors. Prerequisites: NUR 4455, NUR 4455L, NUR 4355, NUR 4355L. Corequisites: NUR 4636, NUR 4945L, NUR 4940.

NUR 4355 Care of Families: Childrearing Nursing (3). The nursing process is applied in assisting childrearing families as clients with adaptation to potential and actual stressors. Prerequisites: NUR 3535, NUR 3535L, NUR 3227, NUR 3227L. Corequisites: NUR 4355L, NUR 4455, NUR 4455L. (F,S)

NUR 4355L Care of Families: Childrearing Nursing Clinical (3). In the clinical setting, the nursing process is applied in assisting childrearing families with adaptation to potential and actual stressors. Prerequisites: NUR 3535, NUR 3535L, NUR 3227, NUR 3227L. Corequisites: NUR 4355, NUR 4455, NUR 4455L. (F,S)

NUR 4455 Care of Families: Childbearing Nursing (3). The nursing process is applied in assisting childbearing families as clients with adaptation to potential and actual stressors. Prerequisites: NUR 3535, NUR 3535L, NUR 3227, NUR 3227L. Corequisites: NUR 4455L, NUR 4355, NUR 4355L. (F,S)

NUR 4455L Care of Families: Childbearing Nursing Clinical (3). In the clinical area, the nursing process is applied in assisting childbearing families as clients with adaptation to potential and actual stressors. Prerequisites: NUR 3535, NUR 3535L, NUR 3227, NUR 3227L. Corequisites: NUR 4455, NUR 4355, NUR 4355L. (F,S)

NUR 4636 Care of Communities: Community Health Nursing (3). Building upon concepts of community-based nursing introduced across the curriculum, this course integrates those concepts into a broader perspective in which the community is the client. Prerequisites: NUR 4455, NUR 4455L, NUR 4355, NUR 4355L. Corequisites: NUR 4286, NUR 4945L, NUR 4940. (F,S,SS)

NUR 4636L Approaches to Nursing IV: Community Nursing: Clinical Experience (3). In the clinical area, the

nursing process is applied in assisting individuals, families, and communities as clients with adaptation to potential and actual stressors. Prerequisites: NUR 4455, NUR 4455L, NUR 4355, NUR 4355L. Corequisite: NUR 4636. (F,S,SS)

NUR 4665 Introduction to International Nursing Research (3). Examines international nursing research methods and design with a focus on global health, specifically related to health disparities in underserved populations in local, national, and international areas. Prerequisite: NUR 3165.

NUR 4827 Professional Nursing: Leadership (3). The client advocate, leadership and change agent roles of the professional nurse are analyzed in a variety of health care settings. Prerequisite: NUR 3017. (F,S,SS)

NUR 4905 Independent Study in Nursing (1-5). Faculty supervised introduction to problems in nursing in accord with the student's special interest.

NUR 4940 Senior Clinical Synthesis (3). Transition from student to graduate role through synthesis of clinical nursing knowledge in preparation for the registered nursing licensure examination. Prerequisites: Completion of all Clinical Nursing courses.

NUR 4945L Senior Clinical Practicum (6). Transition from student to graduate role is provided through leadership experience which allows synthesis of knowledge, skills, and understanding. Assessment of nursing care modalities is emphasized. Prerequisites: Completion of all clinical nursing courses. (F,S,SS)

NUR 4947 Directed Field Experience in Nursing (3). Application and refinement of nursing in a clinical specialty area. Prerequisite: Permission of the instructor.

Occupational Therapy

Alma Abdel-Moty, *Chairperson, Clinical Associate Professor and Undergraduate Coordinator*
Elise Bloch, *Clinical Assistant Professor*
Amy Paul-Ward, *Assistant Professor*
Jose Rafols, *Visiting Assistant Professor*
Pamela Shaffner, *Clinical Associate Professor*
Agnes Sheffey, *Clinical Assistant Professor and Clinical Coordinator*

The Profession of Occupational Therapy (OT) is a health profession which prepares practitioners to develop and restore the functional performance abilities needed for individuals experiencing disease and disability to lead satisfying and productive lives. Occupational therapy may be indicated for persons whose life has been interrupted by disease or injury, or those who suffer from developmental delays or problems associated with aging.

The occupational therapist assesses the individual's abilities to carry out tasks and activities necessary for productive living. Working collaboratively with the client and considering his/her personal goals, lifestyle and environment, the therapist develops an intervention program designed to help restore the greatest possible functional capacity. During the treatment or rehabilitation process, the client actively engages in a directed program of purposeful, meaningful activities designed to increase his or her level of functioning. The occupational therapist works collaboratively with the client, other health professionals on the health care team, and community agency personnel. Occupational therapists serve a wide variety of individuals in all age ranges and work in settings such as community agencies, sheltered workshops, hospitals, schools, extended care facilities, and rehabilitation centers. There is an increasing demand for occupational therapists and excellent opportunities exist for career advancement.

Qualities that are necessary to be a successful therapist include the ability to work with others, look at the totality of human performance, think creatively, problem solve, and direct the actions of others.

Bachelor of Health Sciences Occupational Therapy Track

In 1999 the American Occupational Therapy Association passed a resolution mandating post baccalaureate entry level education for occupational therapy. As of January 2007 successful completion of a post baccalaureate degree program (MS) will be required in order to qualify an individual to sit for the National Board for Certification in Occupational Therapy (NBCOT) certification examination. FIU has a Bachelor of Health Sciences Occupational Therapy Track leading to an MS in OT degree. Students who complete the program with a minimum 3.0 GPA (in upper division courses) are guaranteed admission to the MS in OT degree.

Degree Program Hours: 120

In order to apply to the Bachelor of Health Sciences-Occupational Therapy students must: a.) meet the requirements for admission to the University; b.) have a cumulative GPA of 2.8 or higher; c.) have completed the required prerequisites; and d). have completed an AA from a Florida state institution or have completed at least 60 transferable credits AND meet the University Core Curriculum (UCC) requirements. Applicants must apply to both the Office of Admissions and the Department of Occupational Therapy. Departmental applicants will be accepted from the first week in January until February 15th. Enrollment is limited and one class is selected each academic year to begin Fall semester. The average admitting grade point for admission is over 3.0. Students are selected based on GPA and the strength of their academic record, including a strong liberal arts preparation and the required prerequisites.

Students who already hold a bachelor's degree in a field other than occupational therapy may be eligible for the master's degree program (see graduate catalog).

For updated information regarding application, students can visit our web page at http://ot.fiu.edu. Students can download the OT application but cannot apply electronically.

Advising

Group advising sessions are held on a regular basis during the semester. Visit the department website for dates, and to reserve a space. If you have specific questions related to your application, the OT advisor will answer them during the session. All applicants who live in Miami-Fort Lauderdale area are expected to attend an advising session. Students who live outside the area can call the OT department (305) 348-6068 and ask to speak with an advisor.

Accreditation Status

The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA or (800) 377-8555 (TDD). Graduates of the Master of Science in Occupational Therapy program will be able to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). Most states require licensure in order to practice. Your eligibility for state licensure or certification may be at risk if you have been convicted or found guilty, regardless of adjudication, of a crime in any jurisdiction which directly relates to the practice of occupational therapy or to the ability to practice occupational therapy. A plea of nolo contendere shall be considered a conviction for the purposes of this part. Applicants to the Occupational Therapy Program are required to submit the state and federal background checks at the time of admission. Findings in background checks may affect a student's ability to participate in clinical experiences needed to complete the program, and to obtain licensure. If you have questions about background checks, contact the Associate Dean of the College of Nursing and Health Sciences at (305) 348-7741.

Lower Division Preparation

Required Courses

Biology and Lab	4
Physics and Lab **or** Chemistry and Lab (only one required)	4
General Psychology	3

Human Growth and Development	3
One additional Psychology course (not personal adjustment)	3
Statistics	3
Sociology **or** Anthropology	3
Physiology (3 credits)[1] **or** Human Anatomy and Physiology I and II	6

[1]Students who have completed Anatomy/Physiology I and II with a lab have met the prerequisites for Biology with lab and Physiology.

To be admitted into the program, FIU undergraduates must have met all the lower division requirements including CLAST, and completed 60 semester hours.

Upper Division Program

All courses in the upper division are required.

Required Courses

Junior Year

Fall Semester: (16 credits)

OTH 3000	Foundations of Occupational Therapy	3
OTH 3210	Occupational Development Throughout the Lifespan	2
OTH 3210L	Occupational Development Throughout the Lifespan Lab	1
OTH 3122	Therapeutic Skills in OT I	1
OTH 3122L	Therapeutic Skills in OT Lab I	2
OTH 3160	Adaptive Living Skills	2
OTH 3160L	Adaptive Living Skills Lab	1
ZOO 3731	Human Anatomy	3
ZOO 3731L	Human Anatomy Lab	1

Spring Semester: (13 credits)

OTH 3216C	Occupational Development Throughout the Lifespan II	3
HSC 4553	Fundamentals of Pathology	3
OTH 3413	Applied Kinesiology	3
OTH 3413L	Applied Kinesiology Lab	1
OTH 4418	Impact of Neurodysfunction on Human Performance	3

Summer Semester: (3 credits)

OTH 3815	Fieldwork Experience Level I (4 weeks)	3

Senior Year

Fall Semester: (13 credits)

OTH 4504	Neuromotor Approaches in OT I	3
OTH 4504L	Neuromotor Approaches in OT I Lab	1
OTH 4421	Biomechanical & Rehabilitative Approaches in OT I	2
OTH 4421L	Biomechanical & Rehab Approaches in OT Lab	1
OTH 4322	Neuropsychiatric & Cognitive Approaches in OT I	2
OTH 4322L	Neuropsychiatric & Cognitive Approaches in OT Lab	1
HSC 4910	Intro to Research Methods	3

Spring Semester: (15 credits)

OTH 4423	Neuromotor Approaches in OT II	3
OTH 4423L	Neuromotor Approaches in OT II Lab	1
OTH 4422	Biomechanical & Rehabilitative Approaches in OT II	2
OTH 4422L	Biomechanical & Rehabilitative Approaches in OT II Lab	1
OTH 4323	Neuropsychiatric Cognitive Approaches in OT II	3
OTH 4323L	Neuropsychiatric Cognitive Approaches in OT II Lab	1
OTH 4701	Professional Issues in OT	2
OTH 6772	Evidence Based Practice	3

Bachelor in Health Sciences – OT Track degree awarded. Students who complete the BHS-OT track degree with a minimum 3.0 GPA (in upper division courses) are guaranteed admission to the Master of Science in OT. This program is 4 semesters including summers.

Course Descriptions

Definition of Prefixes

OTH-Occupational Therapy, Majors Only
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

OTH 3000 Foundations of Occupational Therapy (3). History and theory of occupational therapy, including scope of practice and introduction to clinical reasoning. (F)

OTH 3122 Therapeutic Skills in Occupational Therapy I (1). Presents the use of self and the use of occupation as therapeutic mediums. Communication skills and skills in analyzing, adapting, and grading activities are emphasized. (F)

OTH 3122L Therapeutic Skills in Occupational Therapy I Lab (2). Lab experiences enable practice of skills in therapeutic communication, activity analysis and adaptation, and beginning group process. (F)

OTH 3160 Adaptive Living Skills (2). Examination of factors that interfere with an individual's performance of daily activities and occupations. Students will develop problem-solving to evaluate, select, and adapt activities that will assist clients in occupational performance. Corequisite: OTH 3160L.

OTH 3160L Adaptive Living Skills Lab (1). Lab class to accompany Adaptive Living Skills lecture.

OTH 3210 Occupational Development Throughout the Lifespan I (2). Investigates how humans shape and are shaped by their activities and environment. Examines normal occupational development in infants, children and adolescents. Prerequisites: DEP 2000 or equivalent. (F)

OTH 3210L Occupational Development Throughout the Lifespan I Lab (1). Laboratory class to accompany OTH 3210.

OTH 3216C Occupational Development Throughout the Lifespan II (3). Examines normal occupational development of young, middle-aged and older adults. Analysis of occupations and personal and environmental factors that influences occupational competence. Prerequisites: DEP 2000 or equivalent. (S)

OTH 3413 Applied Kinesiology (3). A study of the anatomical, physiological and biomechanical principles of human motion with an emphasis on clinical application. (S)

OTH 3413L Applied Kinesiology Lab (2). Laboratory to accompany OTH 3413 (S)

OTH 3416 Mechanisms of Disease and Dysfunction (3). A study of mechanisms of disease and pathophysiological processes that occur in the human body. State of the art diagnostic techniques, medical advances, and methods of disease prevention are

discussed. Prerequisites: ZOO 3731 and laboratory, PCB 3702, or equivalent. (S)

OTH 3760 Evaluation and Research in Occupational Therapy I (2). Introduces concepts of evaluation and testing in occupational testing in occupational therapy and develops skills necessary to be a research consumer. (F)

OTH 3815 Field Work Experience Level I (3). Pre-clinical experience in an approved training center. (SS)

OTH 4109 Technological Applications in Occupational Therapy (1). Overview of technological applications in clinical practice with emphasis on adaptations for the physically disabled client.

OTH 4109L Technological Applications in Occupational Therapy Lab (1). Laboratory experience with various technological applications used in occupational therapy practice.

OTH 4123 Therapeutic Skills in Occupational Therapy II (1). Studies the use of self and group activities to evaluate and treat individuals with psychiatric disorder or other functional limitations. (F)

OTH 4123L Therapeutic Skills in Occupational Therapy II Lab (2). Application and practice of therapeutic communication, activity analysis and adaptation, and group process skills through role-playing and simulated treatment situations. (F)

OTH 4322 Neuropsychiatric and Cognitive Approaches in Occupational Therapy I (2). Students development proficiency in OT evaluation and treatment techniques for individuals with cognitive and neuropsychiatric disorder. Selected disorders are studied. (F)

OTH 4322L Neuropsychiatric and Cognitive Approaches in OT Lab (1). Laboratory course and utilizing films that depict individuals with cognitive and neuropsychiatric disabilities as these disabilities impact functional performance. Prerequisite: General Psychology.

OTH 4323 Neuropsychiatric and Cognitive Approaches in Occupational Therapy II (3). Students develop proficiency in OT evaluation and treatment techniques for individuals with cognitive and neuropsychiatric disorders. Selected disorders are studied. (S)

OTH 4323L Neuropsychiatric and Cognitive Approaches in Occupational Therapy II Lab (1). Taken concurrently with OTH 4323, students will develop proficiency in administration of assessments and translation of findings in treatment. Prerequisite: OTH 4322.

OTH 4418 Impact of Neurological Dysfunction on Human Performance (3). Covers functional basis of neuroscience as needed to understand neuromotor, neuromotor perceptual, and neuropsychiatric performance in function and dysfunction.

OTH 4421 Biomechanical and Rehabilitative Approaches in Occupational Therapy I (2). Studies the application of biomechanical and rehabilitative approaches to selected physical disabilities. Case studies present specific evaluation and treatment techniques. Prerequisite: OTH 3413. (F)

OTH 4421L Biomechanical and Rehabilitative Approaches in Occupational Therapy I Lab (1). Lab experiences allow students to practice biomechanical and rehabilitative evaluation and treatment strategies in simulated treatment situations. Prerequisite: OTH 3413L. (F)

OTH 4422 Biomechanical and Rehabilitative Approaches in Occupation Therapy II (2). Continued study of the application of biomechanical and rehabilitative approaches to selected physical disabilities. Case studies present specific evaluation and treatment techniques. (S)

OTH 4422L Biomechanical and Rehabilitative Approaches in Occupational Therapy II Lab (1). Provides students with practical experiences in evaluation and treatment techniques for selected physical disabilities. (S)

OTH 4423 Neuromotor Approaches in Occupational Therapy II (3). Foundational knowledge of OT evaluation and treatment of neurologically impaired adults. (S)

OTH 4423L Neuromotor Approaches in Occupational Therapy II Lab (1). Applications of theoretical knowledge to clinical problems in the occupational therapy evaluation and treatment of neurologically impaired adults. (S)

OTH 4504 Neuromotor Approaches in Occupational Therapy (3). Provides theoretical basis for treatment of children with neuromotor disorders. Develops evaluation and treatment planning skill through extensive pediatric casework.

OTH 4504L Neuromotor Approaches in Occupational Therapy I Lab (1). Application of theoretical knowledge to clinical problems in the occupational therapy evaluation and treatment of children with neuromotor disorders. Prerequisites: Neuroscience (ZOO 4743 or equivalent), Occupational Development Across the Lifespan I (OTH 3210. Corequisite: Neuromotor Approaches to Occupational Therapy I.

OTH 4701 Professional Issues in Occupational Therapy (2). Study of professional issues in OT in relation to administration such as roles, functions, licensing, certification, documentation, ADA. (S)

OTH 4775 Evaluation and Research in Occupational Therapy II (2). Presents research concepts and strategies. Emphasis on evaluation and research activities that can be conducted in clinical settings and are relevant to clinical practice. Prerequisites: STA 2122 and evaluation and research in OT I. (S)

OTH 4904 Independent Study (VAR). To be arranged with instructor according to the student's specialty. (F,S,SS)

Physical Therapy

Leonard Elbaum, *Associate Professor and Chair*
Steven Bernstein, *Clinical Assistant Professor*
Martha Bloyer, *Visiting Clinical Assistant and Director of Clinical Education*
Helen Z. Cornely, *Associate Professor and Associate Dean, College of Nursing and Health Sciences*
Awilda R. Haskins, *Associate Professor*
Lisa Roberts, *Assistant Professor*
Colleen Rose St. Prix, *Associate Professor*
Mark Rossi, *Assistant Professor*

About The Department

The Department of Physical Therapy is part of the College of Nursing and Health Sciences.

The mission of the Physical Therapy Department is to meet the physical therapy needs of the local, state, national, and international community by:

- providing post-graduate physical therapy education,
- advancing the knowledge base of physical therapy,
- developing innovative model physical therapy service programs, and,
- providing ethnically diverse physical therapy practitioners poised to help eliminate health disparities by providing culturally competent health care.

Our entry-level curriculum is accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE), and has been since its inception in 1975, allowing graduates of the program to apply for licensure as Physical Therapists throughout the United States. **CAPTE no longer accredits Bachelor's Degree programs, and as a result, the Department no longer offers a Bachelor of Science in Physical Therapy.**

Students interested in Physical Therapy as a career should consider the Bachelor of Science-Health Sciences, which has a Physical Therapy Track (BSHS PrePT). This program is open to any fully admitted undergradaute student at FIU. No application to the physical therapy department is necessary. However, a bachelor's degree in physical therapy is not a requirement for entry into the graduate program. Detailed information is always available at http://physicaltherapy.fiu.edu.

Certificate Programs

Health Information Management

The purpose of the certificate program is to assist in preparing students to become Certified Coding Specialist (CCS) in order to meet the increasing demands of the health care industry. The program is designed over a one-year period with major emphasis on coding of medical records and other medical information. Upon successful completion of the program students are eligible to take the CCS examination offered by the American Health Information Management Association (AHIMA).

Health Information Coding Certificate

Required Courses (18)

Prerequisites: Anatomy and Physiology

HSC 3531	Medical Terminology	3
HIM 3226	Basic ICD-9CM Coding	3
HIM 3236	Advanced ICD-9CM Coding	3
HIM 3437	Fundamentals of Medical Science I	3
HIM 3438	Fundamentals of Medical Science II	3
HIM 4256	CPT- 4 Coding and Reimbursement Issues	3

Students must complete their program of study within three years from the date of admission to the certificate program and receive a 'C' or higher in each course.

College of Nursing and Health Sciences

Dean **Divina Grossman**
Associate Dean, Academic Affairs **Sharon Pontious**
Associate Dean, Administrative Affairs **Helen Cornely**
Assistant Dean, Student Services **Marguerite Cooke-William**

Chairs, and Coordinators:
Communication Sciences and Disorders **Noma Anderson**
Health Information Management **Sandra McDonald**
Health Sciences **Sharon Pontious**
Nursing, Graduate (Interim) **Sharon Pontious**
Nursing, Undergraduate **Kathleen Blais**
Nursing, Biscayne Bay Campus **Paula Delpech**
Occupational Therapy **Alma Abdel-Moty**
Physical Therapy **Leonard Elbaum**

Faculty

Abdel-Moty, Alma, O.T.D., O.T.R. *(Florida International University), Clinical Associate Professor, Occupational Therapy*

Alexander-Delpech, Paula, M.S.N., RN, ARNP *(Florida International University), Clinical Assistant Professor, Nursing*

Anderson, Kathryn, Ph.D., RN, ARNP *(University of Minnesota), Associate Professor, Nursing*

Anderson, Noma, Ph.D., *(University of Pittsburgh), Professor, Communication Sciences and Disorders*

Ardila, Alfredo, Ph.D. *(Moscow State University), Associate Professor, Communication Sciences and Disorders*

Azutillo, Elizabeth, M.S.N., RN *(St. Paul University), Visiting Clinical Assistant Professor, Nursing*

Bernstein, Steve, Ph.D. *(Nova Southeastern University), Clinical Associate Professor, Physical Therapy*

Blais, Kathleen, Ed.D., RN *(Florida Atlantic University), Associate Professorr, Nursing*

Bloch, Elise, M.E.D., O.T.R. *(Queens College, City University of New York), Clinical Assistant Professor, Occupational Therapy*

Bloyer, Martha M.S. *(Florid International University), Clinical Assistant Professor, Physical Therapy*

Bobo, Charles, J.D. MSN, RN, CCRN *(Georgia State University), Clinical Assistant Professor, Nursing*

Bogopolskiy, Tatayana, M.S.N. *(Florida International University), Clinical Assistant Professor*

Brooten, Dorothy, Ph.D., RN, FAAN *(University of Pennsylvania), Professor, Nursing*

Chard, Robin, Ph.D., RN, CNOR, *(Duquesne University), Clinical Assistant Professor, Nursing*

Conte, Vincent, M.D. *(University of Miami), Visiting Clinical Assistant Professor, Nursing*

Cornely, Helen Z., Ed.D., P.T. *(Florida International University), Associate Professor, Physical Therapy*

Delgado, Teresita, M.S.N., RN *(University of Phoenix), Visiting Clinical Assistant Professor, Nursing*

Dyer, Janyce, D.N.Sc., RN, ARNP *(Catholic University of America) Research Professor, Nursing*

Elbaum, Leonard, Ed.D., P.T. *(Florida International University), Associate Professor, Physical Therapy*

Fletcher, Cynthia, Ph.D., RN *(University of Miami), Assistant Professor, Nursing*

Friedemann, Marie-Luise, Ph.D., RN *(University of Michigan), Visiting Professor, Nursing*

Galindo-Ciocon, Daisy, Ph.D., RN, CCRN, ARNP *(University of Miami), Associate Professor, Nursing*

Gillespie-Johnson, Marjorie, Ph.D., RN, ARNP *(University of Maryland), Assistant Professor, Nursing*

Gonzalez, Juan, M.S., CRNA, RN *(Barry University), Clinical Assistant Professor, Nursing*

Gonzalez, Vicente, M.S.N., RN, CRNA, ARNP *(Barry University), Visiting Clinical Assistant Professor, Nursing*

Gordon, Yhovana, M.S.N., RN *(Florida International University), Clinical Assistant Professor, Nursing*

Granville, Mirta, M.S.N., RN-BC, ARNP *(California State University-Long Beach), Clincal Assistant Professor, Nursing*

Groom, Jeffery, Ph.D., RN, CRNA, ARNP *(Nova Southeastern University), Clinical Associate Professor, Nursing*

Grossman, Divina, Ph.D., RN, ARNP, FAAN *(University of Pennsylvania), Dean and Professor, Nursing*

Hamilton, Margaret, D.N.S., RN *(Indiana Univeristy), Clinical Associate Professor, Nursing*

Haskins, Awilda R., Ed.D., P.T. *(Florida International University), Associate Professor, Physical Therapy*

Hernandez, Laura, M.S.N., RN-BC, ARNP *(Barry University), Instructor, Nursing*

Hogan, Gerald, D.N.S.., RN, CRNA, ARNP *(University of North Carolina), Clinical Assistant Professor, Nursing*

Holder, Heather, M.S.N., RN, ARNP *(Florida International University), Clinical Assistant Professor, Nursing*

Jenkins, Sarah, M.S.N., RN, ARNP *(Indiana University), Instructor, Nursing*

Jones, Sandra, Ph.D. RN, ACRN, ARNP, FAAN *(Barry University), Associate Professor, Nursing*

Jorda, Mary, M.P.H., RN, ARNP *(University of North Carolina-Chapel Hill), Instructor, Nursing*

Keane, Florence, D.N.S., RN, ARNP *(Florida Atlantic University), Assistant Professor, Nursing*

Livingstone, Patricia, M.N., RN *(McGill University), Clinical Assistant Professor, Nursing*

Lizardo, Lourdes, Ed.D., RN, ARNP *(Florida International University), Clinical Associate Professor, Nursing*

Lobar, Sandra, Ph.D., RN, ARNP *(University of Miami), Associate Professor, Nursing*

McDonald, Sandra, M.H.S.A., RHIA *(Florida International University), Clinical Assistant Professor and Program Coordinator, Health Information Management*

Mead, Jean, Ed.D., CCC, CSD *(West Virginia University), Clinical Assistant Professor, Communication Sciences and Disorders*

Menzies, Victoria, Ph.D. RN *(University of Virginia), Assistant Professor, Nursing*

Parchment, Yvonne, Ed.D., RN-BC, CCRN, ARNP *(Florida International University), Clinical Associate Professor, Nursing*

Patsdaughter, Carol, Ph.D. *(University of Washington), Visiting Clinical Professor, Nursing*

Paul-Ward, Amy, Ph.D. *(University of California), Assistant Professor, Physical Therapy*

Pestano-Harte, Marilyn, M.S.N., RN *(University of Phoenix), Clinical Assistant Professor, Nursing*

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Pontious, Sharon, Ph.D., RN *(New Mexico State University), Professor, Nursing*
Porter, Luz, Ph.D., RN, ARNP, FAAN *(New York University), Professor, Nursing*
Pritchard, Barbara, M.S.N., RN *(University of Phoenix), Visiting Clinical Assistant Professor, Nursing*
Pyles, Carol, Ed.D. *(West Virginia University), Visiting Professor, Health Sciences*
Rafols, Jose, O.T.D., O.T.R. *(Creighton University), Visiting Assistant Professor, Occupational Therapy*
Ramos, Eliane, Ph.D. *(University of Massachusetts), Visiting Assistant Professor, Communication Sciences and Disorders*
Roberts, Lisa, M.S., P.T., G.C.S. *(Nova Southeastern University), Clinical Assistant Professor, Physical Therapy*
Rose-St. Prix, Colleen, M.H.S.A., P.T. *(Florida International University), Associate Professor, Physical Therapy*
Rossi, Mark, Ph.D., P.T. *(Texas Woman's University), Assistant Professor, Physical Therapy*
Scott, Patricia, Ph.D., MPH, O.T.R. *(Florida International University), Associate Professor, Occupational Therapy*
Shaffner, Pamela, M.S., O.T.R. *(University of Florida), Clinical Associate Professor, Occupational Therapy*
Sheffey, Agnes, O.T.D., O.T.R. *(Nova Southeastern University), Visiting Assistant Professor, Occupational Therapy*
Simon, Sharon, M.S.N., CNS *(University of Miami), Clinical Assistant Professor, Nursing*
Youngblut, JoAnne, Ph.D., RN, FAAN *(University of Michigan), Professor, Nursing*

FLORIDA INTERNATIONAL UNIVERSITY

COLLEGE OF

social work, justice, and public affairs

College of Social Work, Justice, and Public Affairs

Social Work

Paul H. Stuart, *Professor and Director*
Mary Helen Hayden, *Assistant Professor and Associate Director*
Richard Beaulaurier, *Associate Professor*
Jennifer Becker, *Clinical Instructor and Title IV-E Coordinator*
David Cohen, *Professor*
Mario De La Rosa, *Professor and Director, Latino Minority Drug Abuse Research Center*
Jennifer Drazen, *Student Services Coordinator*
Marian Dumaine, *Clinical Associate Professor and Field Practicum Coordinator*
Andres Gil, *Associate Professor and Associate Vice President for Research*
Rosa Jones, *Associate Professor and Vice President of Student Affairs and Undergraduate Education*
Mark Macgowan, *Associate Professor*
Adis Orta, *Visiting Instructor and Assistant Field Practicum Coordinator*
Miriam Potocky-Tripodi, *Associate Professor*
Chris Rice, *Associate Professor*
Florence Safford, *Professor Emeritus*
Barbara Thomlison, *Professor and Director, Institute for Children and Families at Risk*
Ray Thomlison, *Professor and Dean, College of Social Work, Justice, and Public Affairs*
Nan Van Den Bergh, *Clinical Associate Professor*
Richard Van Dorn, *Assistant Professor*
Eric F. Wagner, *Professor and Director, Community Based Intervention Research Group*
Stephen Wong, *Associate Professor*

Social Work offers graduate and undergraduate studies leading to the Bachelor's and Master's degrees in Social Work. The School also offers a Ph.D. in Social Welfare.

This profession requires a high degree of knowledge, skill, and dedication; a desire and ability to work effectively with people and to help solve social problems; a scientific understanding of society and human behavior; skills of social work practice; and identification with values of the profession.

Bachelor of Science in Social Work

Degree Program Hours: 120

The program and courses listed in this catalog are under review and changes may be made without advance notice.

The program offers an integrated educational experience that combines the theoretical and the practical. It is designed to prepare the student for generalist practice as a beginning professional social worker, for entrance into a graduate school of social work, and for participation in society as an informed citizen. The curriculum applies a bio-psychosocial model within the context of a social systems framework to understand client systems, address problems and develop intervention.

The four semester program includes a sequence of academic courses as well as field instruction under qualified supervision in social agencies in South Florida.

The program is accredited by the Council on Social Work Education.

Common Prerequisites

POS 2042	American Government
BSC 2023	Human Biology
	or
PCB 2700	Foundations of Human Physiology
ECO 2013	Macroprinciples
	or
ECO 2023	Microprinciples
DEP 2000	Human Growth and Development
	or
PSY 2020	Introduction to Psychology
SYG 2000	Introduction to Sociology
	or
SYG 2010	Social Problems
STA 1013	Statistics for Social Services

Lower Division Preparation

The student desiring to major in Social Work must have completed the Associate in Arts degree at a Florida public community college, or the lower division core requirements of the university.

Required Courses

Before admission to the Social Work program, the student must complete college-level courses in biology (including coverage of Human Biology) and statistics, 12 semester hours in the social and behavioral sciences, which must include one course each in sociology, psychology, economics and American government and eight to ten hours in a foreign language.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, have a minimum cumulative GPA of 2.5 and must be otherwise acceptable into the program.

For additional information regarding the undergraduate social work program of study and degree program requirements, contact the School directly.

Upper Division Program (60)

Required Courses: (48)

Semester I		
SOW 3113	Social Environment and Human Behavior I	3
SOW 3232	Social Welfare Policy and Services I	3
SOW 3203	Introduction to Social Work	3
SOW 3403	Social Work Research	3
	Elective	3
Semester II		
SOW 3100	Social Environment and Human Behavior II	3
SOW 3233	Social Welfare Policy and Services II	3
SOW 3313	Social Work Practice with Families and Individuals	3
SOW 3620	Social Work and Human Diversity	3
SOW 3350	Interviewing Techniques Lab	3
Semester III		
SOW 4322	Social Work Practice with Groups	3
SOW 4511L	Practicum I	7

SOW 4522	Field Seminar I	2
	Elective	3

Semester IV

SOW 4332	Social Work Practice with Communities and Organizations	3
SOW 4512L	Practicum II	7
SOW 4523	Field Seminar II	2
	Elective	3

Remarks: Students should be aware that courses in this program are sequenced. Students must check with their advisors for pre and corequisite courses. A grade of 'C' or higher (a grade of 'C-' is not acceptable) in all courses required for the major is necessary for graduation. A passing grade in field courses is required for continuation in the program. Field courses cannot be repeated.

Minor in Social Welfare

A five-course minor in social welfare is available to baccalaureate degree-seeking students who are interested in careers in the human services field or who wish to study how common human needs are addressed within social welfare programs. The courses that comprise the minor will provide students with the opportunity to relate to the special concerns of our region, including poverty, crime and delinquency, child abuse and neglect, and family instability. The minor is available at University Park and Biscayne Bay Campus.

SOW 3113	The Social Environment and Human Behavior I	3
SOW 3100	The Social Environment and Human Behavior II	3
SOW 3232	Social Welfare Policy and Services I3	
SOW 3233	Social Welfare Policy and Services II	3
SOW 3203	Introduction to Social Work[1]	3
SOW 3350	Interviewing Techniques Lab	3
SOW 3313	Social Work Practice with Families and Individuals	3
SOW 3801	Self-Awareness and Self-Modification for Practice	3
SOW 4272	Comparative Social Welfare Policy	3
SOW 4341	Behavioral Approaches to Social Work Practice	3
SOW 4654	Child Welfare Practice: Assessment and Planning	3
SOW 4658	Mental Health Services for Children and Adolescents in Child Welfare	3
SOW 4684	Professional Values in the Human Services	3
SOW 5109	Crises in the Lives of Women	3
SOW 5605	Medical Social Work	3
SOW 5641	Understanding the Processes of Aging	3
SOW 5672	Animal Assisted Treatment for Social Work	3
SOW 5155	Social Work Practice with Sexual Problems	3
SOW 5710	Current Issues in Addiction Practices	3
SOW 5932	Seminar in Social Work Practice	3
URS 3005	Service Learning: Social Change and Contemporary Social Issues	3

[1]This course is required for the minor in social welfare. The remaining 12 semester hours are to be selected from the social work courses listed above.

Course Descriptions

Definition of Prefixes

SOW - Social Work.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

SOW 3100 The Social Environment and Human Behavior II (3). Study of individual development, personality, and behavior from a bio-psychological and sociocultural perspective with emphasis on the life cycle, giving attention to racial/ethnic, gender and sexual orientation variables. Prerequisites: SOW 3113 or equivalent, and one college-level course in biology (including coverage of human biology).

SOW 3113 The Social Environment and Human Behavior I (3). Study of the socio-cultural factors (including racial, ethnic, and gender and sexual orientation variables) affecting human development and behavior in families, groups, organizations, and communities. Prerequisites: College level Biology (including coverage of Human Biology).

SOW 3203 Introduction to Social Work (3). An overview of the profession of social work within the institution of social welfare. Historical and philosophical development, field of practice, values, and ethics.

SOW 3232 Social Welfare Policy and Services I (3). This course considers the major social welfare programs in the United States: how they emerged and developed, and how they operate today. Analysis of financial resources, decision-making processes, and structure of delivery systems serves as a basis for understanding policy assessment. Pre/Corequisites: American Government and Economics.

SOW 3233 Social Welfare Policy and Services II (3). This course examines the frameworks and methods used to analyze social welfare policy and programs. Special attention is paid to current policy issues in the Social Welfare system and strategies that can be used to achieve policy change. Prerequisites: SOW 3232 and SOW 3203 or equivalent.

SOW 3313 Social Work Practice with Families and Individuals (3). Overview of generalist social work practice with a focus on individuals and families. Social work practice framework and principles, use of values/ethics and skill development are included. Prerequisites: SOW 3203, SOW 3113. Prerequisite or Corequisite: SOW 3100.

SOW 3350 Interviewing Techniques Lab (3). This is a competency-based course providing students with basic interviewing skills for Social Work practice. Emphasis is on acquisition of interviewing behavior rather than theory. Prerequisite or Corequisite: SOW 3313.

SOW 3403 Social Work Research (3). Introduction to the basic language, methods, and skills of scientific research for beginning social work practice. Problem formulation, literature review, definition of variables, sampling, data collection and analysis, and report writing are addressed. Prerequisites: STA 1013 or equivalent.

SOW 3620 Social Work and Human Diversity (3). Prepares students for generalist social work practice with

diverse populations focusing on knowledge, attitude, and skills. Prerequisite: SOW 3203.

SOW 3801* Self-Awareness and Self-Modification for Practice (3). An experience oriented course directed toward helping students become aware of their own interpersonal processes and how these may influence their skill and effectiveness as professional helping persons. Emphasis is on personal learning.

SOW 4272* Comparative Social Welfare Policy (3). A combination seminar and lecture course in which students will analyze and compare social welfare policy, problems, and programs in various countries.

SOW 4322 Social Work Practice with Groups (3). This course is designed to provide the theories and techniques of generalist social work practice with small groups in a wide range of social service agencies and with a diverse client population. Prerequisites: SOW 3313, SOW 3350. Corequisites: SOW 4511L, SOW 4522.

SOW 4332 Social Work Practice with Communities and Organizations (3). Provides an understanding of planned change at the community level from a social work perspective, as well as strategies and methods utilized in community organization practice. Identification of generalist skills and prevalent models of groups and community organization in social work practice. Prerequisites: SOW 4322, SOW 4511L, SOW 4522. Corequisites: SOW 4512L, SOW 4523.

SOW 4341* Behavioral Approaches to Social Work Practice (3). An introduction to the basics of learning theory as applied to social work settings. A review of principles of cognitive and learning theory applied to generalist practice.

SOW 4511L Practicum I (7). The first of two practicum courses that provide students with the opportunity to apply and integrate generalist social work knowledge and skills in a supervised experience. Prerequisites: SOW 3113, SOW 3100, SOW 3232, SOW 3233, SOW 3203, SOW 3403, SOW 3313, SOW 3350, and SOW 3620. Corequisites: SOW 4322, SOW 4522.

SOW 4512L Practicum II (7). The second of two practicum courses that provide students with the opportunity to apply and integrate generalist social work knowledge and skills in a supervised practice experience. Prerequisites: SOW 4511L, SOW 4322, SOW 4522. Corequisites: SOW 4332, SOW 4523.

SOW 4522 Field Seminar I (2). This seminar is taken concurrently with SOW 4511L and SOW 4322. It is designed to analyze the field practicum experience by emphasizing the integration of theory and practice. Prerequisites: SOW 3122, SOW 3233, SOW 3313, SOW 3620, SOW 3350, and SOW 3403. Corequisites: SOW 4511L and SOW 4322.

SOW 4523 Field Seminar II (2). This seminar is taken concurrently with SOW 4512L and SOW 4332. It is designed to analyze the field practicum experience by emphasizing the integration of theory and practice. Prerequisites: SOW 4511L, SOW 4322, SOW 4522. Corequisites: SOW 4512L, SOW 4332.

SOW 4654* Child Welfare Practice: Assessment and Planning (3). This elective course will examine theories and models of intervention with children and adolescents within the context of the family. The main focus of the course will be on the special diagnostic and treatment skills of the social worker that are required for effective treatment and intervention with client populations. Pre/Corequisites: SOW 3313 or permission of the instructor.

SOW 4658* Mental Health Services for Children and Adolescents in Child Welfare (3). Evidenced-based child welfare interventions within an early childhood mental health model. Emphasis on the needs of high-risk children and adolescents who are in the child welfare system or at risk for entering the child welfare system. Areas addressed: (1) early child development and education; (2) child health and wellbeing; (3) prevention of child maltreatment and family violence; (4) parenting skills and parent education; and (5) transition to adulthood for young people with challenging behaviors more consistent with content and with agreement with Department of Children and Families. Prerequisites: Students in the Certificate in Child Welfare Practice or permission of the instructor.

SOW 4684* Professional Values in the Human Services (3). This course is designed to assist students in identifying, exploring, and experiencing the values inherent in professionalism, as they are manifested in the various human service professions. Material will be presented in a didactic and experiential manner with emphasis upon student involvement in the value clarification process. Prerequisite: Senior standing.

SOW 4905* Individual Study (1-9). Individually selected program of supervised study related to specific social work issues. Prerequisite: Permission of the instructor. (F,S,SS)

SOW 4932* Current Topics in Social Work (3). This course presents an extensive examination of current issues and problems in social work. Interventive technology to address these issues will be presented.

SOW 5109 Crises in the Lives of Women (3).** An overview of special experiences in the lives of women which might lead women to seek professional assistance. Topics include pregnancy, rape, abortion, childbirth, sex discrimination, climacteric, widowhood. Prerequisites: Senior or graduate standing.

SOW 5155 Social Work Practice with Sexual Problems (3).** Skills applicable to sex-related concerns encountered in social work practice. Presents theories of the etiology of common sexual problems and explores treatment intervention modalities. Prerequisites: Graduate level or permission of the instructor.

SOW 5235 Social Welfare Policy and Services I (3).** This course analyzes major social welfare policies and programs in the United States, their emergence, development, contemporary operations and how they shaped the development of the Social Work profession. (F)

SOW 5240 Advanced Interventions in Child Maltreatment (3).** This course will examine best practices in the health, mental health, and socio emotional development of children and adolescents within the child welfare system.

SOW 5241 Advanced Child Welfare Policy and Practice (3).** This course will explore professional practice and policy issues in child welfare, with emphasis on intervention in child maltreatment. Prerequisite: SOW 5105 or advanced standing or permission of the instructor.

SOW 5354 Crisis Intervention in Social Work Practice (3).** This course examines the etiology, structure, theory, and application of crisis intervention in social work practice. It provides assessment criteria for assignment to this form of treatment and techniques for intervention. Prerequisites: Senior or graduate level practice course, or permission of the instructor.

SOW 5455 Writing and Managing Grants for Social Service Programs (3).** Prepare students to write, develop and manage grants for social services programs. Develop knowledge of grant sources, the grant making, writing and management of grant funded social welfare services. Prerequisite: SOW 5344.

SOW 5532 Clinical Practicum I (6).** The first masters-level field practicum and four integrative seminars that provide students with the opportunity to apply and integrate generalist social work knowledge and skills. Prerequisites: SOW 5629, 5105, 5235, 5342, 5344, 5404. Corequisites: SOW 5125, 5324, 5629, and 5542. (S,SS)

SOW 5605 Medical Social Work (3).** Principles of medical social work required in hospitals and communities. Focus on the social worker as part of the health care team, with basic knowledge of medical problems of patients and their families. Prerequisites: Graduate or senior standing.

SOW 5607 Social Work Practice and Psychopharmacology (3).** Social work practice, research, and policy in relation to psychotropic drugs including effectiveness and limitations of main drug classes and ethical, professional, legal, scientific and cultural issues. Prerequisites: Graduate or senior standing.

SOW 5614 Social Work Practice with Persons Affected by Domestic Violence (3).** Course prepares students to appropriately identify, assess, and intervene with persons affected by domestic violence utilizing assessment and intervention strategies in practice. Prerequisites: Practicum I/Methods I.

SOW 5621 Social Work with Refugees, Immigrants, and Migrants (3).** Provides skills and knowledge responsive to the needs of immigrants and refugees and addresses influences of cultural, ethnic, gender, age, and class differences in acculturation and service delivery. Prerequisites: Practicum I/Methods I.

SOW 5624 Feminist Therapy in Social Work (3).** Reviews basic principles of feminist therapy and focuses on the application of feminist therapy in clinical social work practice. Prerequisites: Graduate standing or permission of the instructor.

SOW 5629 Social Work Practice with Diverse Populations (3).** Prepares students for responsive practice with diverse populations, with emphasis on South Florida. Includes knowledge and skills in interviewing, assessment interventions, termination, and follow-up. Prerequisite: SOW 5342.

SOW 5635 School Social Work Practice (3).** Designed to assist students in developing knowledge and skills necessary for effective social work practice in school settings. Promotes understanding of social work practice to improve the functioning of children. Prerequisites: Graduate or permission of the instructor.

SOW 5641 Understanding the Process of Aging (3).** Study of the physical, psychosocial, and cultural factors affecting human development in late life, from a social work perspective. Prerequisites: Graduate or senior standing and permission of the instructor.

SOW 5672 Animal Assisted Treatment for Social Work (3)** An introduction to the human animal bond and animal assisted treatment. There will be illustrations of programs using small animals, horses, and dolphins. Prerequisites: Graduate or permission of the instructor.

SOW 5710 Current Issues in Addiction Practices (3).** An overview of chemical dependency in the social service delivery system including policy and program approaches, client assessment, treatment techniques and prevention issues. Prerequisites: Graduate or senior standing.

SOW 5932 Seminar in Social Work Practice (3).** An exploration of various critical issues of concern to the social work profession. Prerequisites: Graduate or senior standing.

*Social Work Elective
**Social Work Elective – Senior Standing

Criminal Justice

Lisa Stolzenberg, *Associate Professor and Director*
Joseph Byrnes, *Instructor*
Ellen G. Cohn, *Associate Professor*
Stewart D'Alessio, *Associate Professor*
Jamie Flexon, *Assistant Professor*
Rob Guerette, *Assistant Professor*
Suman Kakar, *Associate Professor*
Ramiro Martinez, *Professor*
Luis Salas, *Professor*
W. Clinton Terry, *Associate Professor*

Criminal Justice is an area of study dealing with the formal mechanisms of social control by which society exercises constraint over its members. The study of criminal justice is interdisciplinary. It involves law, the social and behavioral sciences, crime, the reaction of society to the crime problem, and the means used in treating it.

A variety of career opportunities are available in criminal justice at all levels of government and the private sector. Due to its interdisciplinary approach, the study of criminal justice fills the needs of students seeking careers in law and within the various agencies of the criminal justice system.

Bachelor of Science in Criminal Justice

Degree Program Hours: 120

Lower Division Preparation

Students intending to enroll in criminal justice are urged to complete an Associate in Arts degree at the lower division. Entering students are not required to have been enrolled in a pre-criminal justice program. Students having an Associate in Science degree or 60 semester hours will also be accepted, but must meet the University's Core Curriculum requirements before the bachelor's degree can be awarded.

Upper Division Program

After completing 60 semester hours of lower division course work, a student is eligible to apply for admission into the Bachelor of Science in Criminal Justice program. Students who have met the University Core Curriculum or the General Education lower division requirements and who have a grade point average (GPA) of 2.0 and above will qualify for admission to the program. Students must complete 60 credit hours at the 3000 level or above. The 60 credit hours consist of 27 credit hours of required courses, 21 credit hours of criminal justice electives and 12 credit hours of general electives.

Core Courses

Nine courses are required of every student in criminal justice. A core course requirement may only be waived by the Director or designee.

CCJ 3011	Nature and Causes of Crime	3
CJC 3010	Corrections	3
CJE 3110	Law Enforcement	3
CJL 3512	The Courts	3
CJL 4064	Criminal Justice and the Constitution	3
CCJ 4497	Criminal Justice and Public Policy	3
PAD 4704	Applied Statistics for Policy and Management	3
URS 3438	Communication Skills for Policy and Management	3
URS 4153	Applied Research Methods for Policy and Management	3

Criminal justice majors are advised to complete all core requirements in the early stages of their study in order to ensure completion for graduation.

Criminal Justice Electives

Twenty-one semester hours at the 3000-level or above in criminal justice are required for criminal justice majors. Only nine semester hours of CCJ 4940 (internship) will count toward this requirement.

Course work from disciplines outside of criminal justice will not be accepted to fulfill requirements in the criminal justice elective category.

General Electives

Twelve semester hours at the 3000-level or above are required. Independent study and directed reading courses may not be taken outside of the School of Criminal Justice.

Students are required to maintain a minimum GPA of 2.0 in criminal justice electives and a minimum grade of 'C' in each of the criminal justice core courses. Note: A 'C-' is not acceptable.

Internships

Although it is not required, it is highly recommended that students without relevant work experience apply for field placement as an Intern. Interested students must speak to the Internship Coordinator a semester in advance to ensure the availability of locations. Students should have the majority of their core courses completed, and must satisfy any other requirements as directed by the Internship Coordinator or the sponsoring site. Only nine semester hours may be used as criminal justice electives.

Transfer Credit

A student transferring from a four year college may transfer up to 90 semester hours into the criminal justice program; however, the student must still have at least 60 semester hours at the 3000-level or above. All work transferred to FIU is subject to review and approval by the Program Director or designee. Criminal justice courses completed with a grade of 'D' will not be transferred.

Double Majors and Degrees

Students must complete the core courses (27 hours) plus 21 additional hours in criminal justice in order to:

1. satisfy criminal justice requirements for a double major,
2. obtain a second degree with a major in criminal justice,
3. obtain two baccalaureate degrees simultaneously (provided requirements for two majors have been completed as certified by the appropriate academic units, and a minimum of 30 appropriate semester hours beyond the requirements of one degree have been earned).

Combined Bachelor's/Master's Degree in Criminal Justice

The combined bachelor's/master's degree program is designed for superior undergraduate students who have the ability to pursue an accelerated program in criminal justice leading to the Master of Science in Criminal Justice. The main feature of the program is that up to 12 semester hours of approved graduate level criminal justice courses (i.e., course numbers of 5000 and higher) may be

used as dual credit for both the undergraduate and graduate degree. All other requirements for both the bachelor's degree and the master's degree must be met.

Applicants to the program should apply to both the graduate program and the combined program by the end of the first semester of the senior year and will present:

1. completion of at least 24 hours at FIU (including at least 12 semester hours in criminal justice) with a GPA of 3.2 or better,
2. obtain a letter of recommendation from a faculty member at FIU or a supervisor, and
3. demonstrate graduate level writing competency by submitting an essay three to five pages in length that addresses personal and career goals.

Admission to the program will be determined jointly by the Director, the Dean, or designee.

After admission into the accelerated program, students will:

1. obtain approval by the Director of a proposed program of study to fulfill the requirements for both the B.S. and M.S. degrees, which may include up to 12 semester hours of approved graduate level course work as dual credit toward both degrees, and
2. maintain a cumulative GPA of 3.2 or better in all course work, and a GPA of 3.2 or better in criminal justice course work.

Minor in Criminal Justice

A five course minor in criminal justice is available to baccalaureate degree-seeking students who are interested in careers in the criminal justice field. Students may select any five criminal justice classes (15 credits) that begin with the prefixes CCJ, CJC, CJE, and CJL. At the time of graduation, it is the student's responsibility to contact the department from which the student wishes to receive the minor. This will ensure that the minor will be posted on the transcript.

Course Descriptions

Definition of Prefixes

CCJ-Criminology and Criminal Justice; CJC-Corrections; CJE-Law Enforcement; CJL-Law and Process; PAD-Public Administration; URS-Urban and Regional Studies.

CCJ 3000 Criminal Investigation (3). This course provides students with a basic understanding of the investigatory process. Analysis of problems encountered in interviewing, interrogating, evidence collection, and admissibility will be examined.

CCJ 3011 The Nature and Causes of Crime (3). Focuses on the collection and dissemination of crime statistics, major theoretical approaches to the understanding of crime, and different types of crime and criminal behavior.

CCJ 3024 The Criminal Justice System (3). An examination of the history, organization, and function of the criminal justice system, including police, courts, and corrections.

CCJ 3450 Criminal Justice Administration (3). Application of organization and administration theories to the criminal justice system.

CCJ 3501 Juvenile Justice (3). Examines the nature and extent of deliquency in the United States and the system response to juvenile crime.

CCJ 3628 Homicide (3). A comprehensive study of homicide in the United States through the examination of individual cases, typology construction, and models.

CCJ 3651 Drugs and Crime (3). Examines the history and consequences of mind-altering drugs, and criminal behavior as it is affected by drugs, the legal response to substance abuse, treatment and prevention of substance abuse.

CCJ 3666 Victimology (3). A comprehensive study of victimization, including the relationship between the victims and offenders, and their interaction with the criminal justice system.

CCJ 3934 Contemporary Issues in Criminal Justice (3). An extensive examination of selected contemporary issues in criminal justice. May be repeated with different topics and instructor.

CCJ 4007 History of Criminal Justice (3). A survey of the history and development of the criminal justice system from ancient to modern times, with a focus on understanding current criminal justice issues through a historical perspective.

CCJ 4032 Crime and the Media (3). An examination of the role of the media in reporting crime and the extent to which media coverage of crime and the criminal justice system impacts the commission of crimes and the operation of the system.

CCJ 4497 Criminal Justice and Public Policy (3). Integrates material learned in the Criminal Justice curriculum and explores criminal justice policy issues. Assesses the consequences of criminal justice policies on the system and society. Prerequisites: CCJ 3011, CJC 3010, CJE 3110, CJL 3512.

CCJ 4641 Organized Crime (3). Historical development of organized crime in the U.S.; defining "organized crime" from U.S. and international perspective; patterns of criminal activity; critique of police and prosecutorial efforts to curb organized crime.

CCJ 4644 White Collar Crime (3). The nature of white-collar crime and its social control is examined including the definition, typologies, theories, law, policing, regulating, prosecuting, defending, and its adjudication.

CCJ 4661 Terrorism (3). Examines the nature and causes of terrorism and the national, regional and global effects of particular terrorist groups focusing on their collective behavior and objectives.

CCJ 4662 Criminal Justice and the Minority Community (3). Patterns and trends in victimization and offending by different racial/ethnic groups; explanations for racial/ethnic variations in offending and victimization; definitional issues involved in terms "racism," "prejudice," etc.; extent of discrimination/disparity at various points of the criminal justice system.

CCJ 4663 Women, Crime and the Criminal Justice System (3). Women as deviants, criminals, victims, and professionals in the criminal justice system.

CCJ 4700 Research Methods in Criminal Justice (3). A study of basic methods used in criminal justice research. Emphasis on research designs, including experimental, quasi-experimental, and evaluation research. Measurement, sampling, questionnaire construction, and survey research are also covered.

CCJ 4910 Independent Research (1-3). Designed to provide qualified students with the opportunity to conduct research in an area of criminal justice under the direction of a faculty member. Requires permission of the instructor and Director. May be repeated for a maximum of 6 semester hours.

CCJ 4940 Internship in Criminal Justice (1-12). Field placement in an approved criminal justice agency for integration of theory and practice through participant observation study. (Pass/Fail grading).

CJC 3010 Corrections (3). An overview of correctional philosophies, practices and procedures. (F,S,SS)

CJC 4166 Community Corrections (3). Surveys history, and current status of community correctional programs, including diversion, probation, parole, and other community programs for adult offenders.

CJC 4310 Institutional Corrections (3). Surveys history and current status of jails and adult prisons with emphasis on punishment rationales, institutional programs and procedures, inmates' social structures, correctional officers, and contemporary issues.

CJE 3110 Law Enforcement (3). Examines the origins, functions and operations of policing in urban America.

CJE 3444 Crime Prevention (3). Examines situational, social, and legislative approaches to the prevention of crime and delinquency. Emphasis on theories, implementation, and consequences of these approaches.

CJE 4174 Comparative Criminal Justice Systems (3). A comparative study of the major legal traditions (e.g., common law, civil law, socialist law) and analysis of the criminal justice system across the world, including police, courts, and corrections.

CJE 4410 Community Policing (3). Examines the historical, philosophical, and practical dimensions of the police and community collaboration to solve and prevent crime.

CJL 3410 Criminal Procedure (3). An in-depth study of the 4th through 8th Amendments of the Constitution, and their impact on the criminal justice process.

CJL 3512 The Courts(3). An overview of jurisdiction, policies, and procedures of courts in the administration of criminal justice.

CJL 4064 Criminal Justice and the Constitution (3). A case law study of constitutional issues related to the administration of criminal justice.

CJL 4074 Correctional Law (3). Legal problems from conviction to release: pre-sentence investigations, sentencing, probation and parole, incarceration, loss and restoration of civil rights.

CJL 4133 Criminal Evidence (3). A study of evidentiary principles and rules of evidence, and their application in a courtroom setting.

CJL 4412 Criminal Law (3). Examines the structure, function, and principles of criminal law, including the acts, mental state, and attendant circumstances that are necessary elements of crime.

PAD 4704 Applied Statistics for Policy and Management (3). The intent of this course is to familiarize students with the basic approaches to social research as applied in public and service settings. Emphasis will be placed on techniques for organizing and presenting data for policy and management decision-making.

URS 3438 Communication Skills for Policy and Management (3). Designed to enable students to develop oral and written skills required to communicate effectively in public organizational and public policy settings.

URS 4153 Applied Research Methods for Policy and Management (3). Research design, sampling, critical evaluation, basic research ethics, experiments and quasi experiments, reliability and validity surveys, design-implementation, qualitative and quantitative methods, secondary analysis evaluation and presentation.

Public Administration

Ronald M. Berkman, *Professor and Provost*
Ray Thomlison, *Professor and Dean*
Meredith Newman, *Professor and Director*
Fred Becker, *Associate Professor*
Esteban Dalehite, *Assistant Professor*
Howard Frank, *Associate Professor*
Emel Ganapati, *Assistant Professor*
Sukumar Ganapati, *Assistant Professor*
Jean-Claude Garcia-Zamor, *Professor*
Edward Murray, *Assistant Professor*
Valerie L. Patterson, *Assistant Professor*
Lourdes Rassi, *Associate Professor and Associate Dean*
Keith Revell, *Associate Professor*
Allan Rosenbaum, *Professor and Acting PhD Coordinator*

Bachelor of Public Administration

Degree Program Hours: 120

The Bachelor of Public Administration (BPA) degree is offered for students interested in beginning a public service career upon completion of their undergraduate work and for those who wish to continue in public administration at the graduate level.

Admission Requirements

A student must complete an Associate in Arts degree at a Florida public community college or have earned 60 semester hours of college credit at any other accredited institution at an acceptable performance level to be considered for admission.

Students with an Associate in Science degree or 60 semester hours will be accepted, but must complete the University's Core Curriculum (UCC) requirements before the bachelor's degree can be awarded.

To qualify for admission to the program, FIU undergraduates must have completed 60 semester hours, including all CLAST requirements, and have an overall GPA of 2.0 or better.

Common Prerequisite

POS 2041	American Government

Lower Division Preparation

It is recommended that applicants complete the Associate in Arts degree (60 semester hours) in the lower division and the University Core Curriculum (UCC) requirements.

It is required that students complete a course in American Government. Three credits in History, and three credits in Public Administration are recommended.

Upper Division Program

Students must complete 60 credit hours at the 3000 level or greater.

Students must complete the following requirements:

1. Sixteen core courses.
2. Three courses (9 credits) in an administrative area of concentration to be taken within or outside the Program, with prior permission from the advisor.
3. A three credit seminar, PAD 4934 (Integrative Seminar in Public Administration).
4. Students must earn a grade of 'C' or higher in PAD 3003, in each of the 15 core courses, in the concentration electives, and in the Integrative Seminar. A 'C-' is not acceptable and must be repeated.

Core Courses: (48)

Policy		
PAD 3003	Introduction to Public Administration	3
PAD 3034	Policy Development and Implementation	3
PAD 3251C	Applied Economics for Public Managers	3
PAD 4301	Planning, Performance and Accountability	3
URS 3001	Introduction to Urban and Regional Studies	3
URS 4004	Introductory Fiscal Analysis for Health and Public Service	3
Quantitative Skills		
PAD 4704	Applied Statistics for Policy and Management	3
URS 4153	Applied Research Methods for Policy and Management	3
Public Management		
URS 4643	Introduction to Management of Public, Nonprofit, and Health Organizations	3
PAD 3804	Government and Administration of Metropolitan Areas	3
PAD 4223	Public Sector Budgeting	3
PAF 4260	Public Relations for Public Managers	3
PAF4404	IT and E-government for Public Managers	3
PAD 4141	Citizen Participation and Community Empowerment	3
URS 3438	Communication Skills for Policy and Management	3
URS 4061	Values, Ethics, and Conflict Resolution	3

Concentration Electives: (9)

Three additional courses must be taken, but may be completed within or outside the program. These courses must be pre-approved by the undergraduate advisor as being related to the student's program of study. These courses may constitute part of a minor or a certificate program in another department. Such a minor or certificate program must be pre-approved by the undergraduate advisor and be relevant to the chosen administrative area of concentration.

Integrative Seminar and Internship: (3)

All students must take PAD 4934 (Integrative Seminar). Students with no relevant employment experience are strongly encouraged to complete an internship (PAD 4940) in an appropriate public agency. Internship credits will satisfy electives requirements.

Minor in Public Administration

A five-course minor in Public Administration is available to baccalaureate degree-seeking students who are interested in careers in public service. The courses that comprise this minor will provide students with the opportunity to develop specialized skills in such areas as urban administration, organizational change, personnel management, and budgeting and financial management. The minor is available on both campuses.

Requirements

Fifteen semester hours in Public Administration. Classes are to be selected from the following course list:

PAD 3033	Administrators and the Legislative Process	3

PAD 3034	Policy Development and Implementation	3
PAD 3430	Personal Growth and Organizational Development	3
PAD 3804	Government and Administration of Metropolitan Areas	3
PAD 3834	International Comparative Administration	3
URS 4061	Values, Ethics, and Conflict Resolution	3
URS 4643	Introduction to Management	3
PAF 4404	IT and E-Government	3
PAF 4260	Public Relations	3
PAD 4301	Planning, Performance, and Accountability	3
PAD 4141	Citizen Participation	3
URS 3001	Introduction to Urban and Regional Studies	3
PAD 3251C	Applied Economics for Public Managers	3
PAD 4103	Politics of Administrative Organization	3
PAD 4223	Public Sector Budgeting	3
PAD 4414	Personnel Skills for Administrators	3
PAD 4432	Administrative Leadership and Behavior	3
PAD 4603	Administrative Law	3

Criminal Justice and Health Services majors cannot use core courses towards their minor.

You may choose other courses from the list provided in the Undergraduate Catalog; however, the following five courses are highly recommended to complete your minor:

PAD 4223	Public Sector Budgeting
PAD 4414	Personnel Skills for Administrators
PAD 3804	Government and Administration of Metropolitan Areas

Students must contact the department from which the student wishes to receive the minor when they apply for graduation. This will ensure that the minor will be posted on the transcript.

Course Descriptions

Course Definitions

PAD-Public Administration; URS-Urban and Regional Studies

PAD 3003 Introduction to Public Administration (3). The course will provide an overview of the field of public administration by focusing on its development and importance in modern government operations. The course will also review operation of government at local, state, and federal levels.

PAD 3033 Administrators and the Legislative Process (3). A study of executive-legislative interactions; the impact of legislation and legislative processes on administrative policy decision-making and implementation; the influence of administration on the legislating process.

PAD 3034 Policy Development and Implementation (3). Examines the formulation, implementation, and evaluation of governmental efforts at federal, state, and local levels.

PAD 3251C Applied Economics for Public Managers (3). This course provides an introduction to the applied economics of the public sector and the microeconomics of public policy making and administration. It also provides an introduction to cost-benefit & cost-effectiveness analyses.

PAD 3430 Personal Growth and Organizational Development (3). The administrator as a person. Development of interpersonal skills. Self evaluation and career planning. Training and education for the public service sector.

PAD 3804 Government and Administration of Metropolitan Areas (3). An intensive analysis of administrative problems in large complex urban areas encompassing many political entities. Examines overlapping relations among municipalities with special attention given to Miami-Dade County as well as current trends in public management and future directions for change.

PAD 3834 International Comparative Administration (3). This course is an introduction to a wide range of scholarly and practical 'applied' interests. Emphasis is on institution-building and development administration, particularly within the Third World countries.

PAD 4103 Politics of Administrative Organization (3). The role of political processes in relationship to public organizations and the types of intra- and inter-organizational politics which are unique to public organizations. Effects of these political processes upon organizational performance and their role in promoting or inhibiting organizational change.

PAD 4141 Citizen Participation and Community Empowerment (3). Seminar is for public management students who want to help citizens learn from one another and strengthen the capacity of citizens to solve problems. Political, public administration, sociological, and organizational perspectives will be covered.

PAD 4223 Public Sector Budgeting (3). The theory and practice of various approaches to budgeting, including line-item, performance, PPBS budgeting. Special emphasis on the role of the budget in shaping the program and performance and policy direction of public organizations.

PAD 4301 Planning Performance and Accountability (3). Provides an introduction to the analysis and evaluation of public policies and programs. The main tools and techniques of policy analysis will be discussed. Students will apply techniques to selected policy problems.

PAD 4414 Personnel Skills for Administrators (3). The general nature of public personnel administration; the development of the civil service system; concepts and issues currently applicable at the federal, state, and local levels of government.

PAD 4432 Administrative Leadership and Behavior (3). Designed to expose students to a systematically related set of concepts for diagnosing human behavior in organizations; and to establish a positive value for the analysis of problems involving people, structure, environment, task technology, and situational climate.

PAD 4603 Administrative Law (3). Surveys the principles of law from the perspective of the public administrator; administrative procedure; procedural due process; delegation of legislative power; regulatory administration; conflict-of-interest statutes, etc.

PAD 4704 Applied Statistics for Policy & Management (3). The intent of this course is to familiarize students with the basic approaches to social research as applied in public and service settings. Emphasis will be placed on techniques for organizing and presenting data for policy

and management decision-making. Prerequisites: URS 4112 or equivalent.

PAD 4905 Independent Study in Public Administration (1-6). (Normally 3 credit hours) Individual conferences, supervised readings; reports on personal investigations; and similar undertakings. Prerequisites: Senior standing and approval of the faculty member supervising the independent study.

PAD 4934 Integrative Seminar in Public Administration (3). The terminal course of the program. Students will integrate coursework and theory into the analysis of a public policy or public management problem and produce a final seminar paper. Prerequisites: Successful completion of required courses and a total of at least 108 credits.

PAD 4940 Public Administration Internship (3-6). (Normally 3 credit hours) Supervised work experience in a public or quasi-public organization. Involves a variety of professional and technical job duties depending on the agency. Prerequisites: Successful completion of required courses in public administration and approval of internshp coordinator.

PAD 4949 Cooperative Education (3). Supervised work experience in public or quasi-public organization. Placement is made through the Office of Cooperative Education. Prerequisites: Completion of required courses in public administration and consent of Director required.

PAF 4260 Public Relations for Public Managers (3). Surveys the government mass communication media relationship and then concentrates on the ways in which public managers handle media relations. Emphasis is placed on questions of information handling unique to public organizations.

PAF 4404 IT and E-government for Public Managers (3). Surveys personal and societal value assumptions in the context of the technological society. Examines organizational societal value structures, and the ways in which technology creates rapid change and new alternatives in values. Interrelationship of the past, present, and future is explored.

URS 3001 Introduction to Urban and Regional Studies (3). An integrated approach to the problems and prospects of metropolitan areas with emphasis on economic, political, social and administrative facets of the urban setting.

URS 3438 Communication Skills for Policy and Management (3). Designed to enable students to develop oral and written skills required to communicate effectively in organizational and public policy settings.

URS 4004 Introductory Fiscal Analysis for Health and Public Service (3). This course is designed to provide the basics of pricing mechanisms and financial planning techniques applicable to health, nonprofit, and public organizations and enterprises.

URS 4061 Values, Ethics, and Conflict Resolution (3). Theories of value: ethical systems and their influence on administration, behavior and process; the administrator as an ethical actor; value conflict and resolution; the philosophical basis of American thought.

URS 4153 Applied Research Methods for Policy & Management (3) Research design, sampling, critical evaluation, basic research ethics, experiments and quasi experiments, reliability and validity surveys, design-implementation, qualitative and quantitative methods, secondary analysis evaluation and presentation.

URS 4643 Introduction to Management of Public, Nonprofit and Health Organizations (3). Fundamental theories and principles of management in public, nonprofit, and health service organizations.

URS 4931 Current Topics in Urban and Regional Studies (3). In-depth exploration of current, critical topics in the urban arena. Emphasis on multidisciplinary approaches to local issues impacted by increased globalization and competition among cities and regions. May be repeated for credit.

Certificate Programs

Certificate in Child Welfare Services

This certificate is intended to provide specialized training for students working in the arena of child protection and services.

Requirements: (24 credits)

Admission into Social Work (BSSW) program.

SOW 4658	Mental Health Services for Children in the Child Welfare System	3
SOW 4654	Child Welfare Practice: Assessment and Planning	3
SOW 4511	Field Practicum I	9
SOW 4512	Field Practicum II	9

Certificate in Professional Leadership Studies

Coordinating Committee
Meredith Newman, *Director, Public Administration*
Beverly Dalrymple, *Co-Director, Center for Leadership Development & Civic Responsibility*
Barbara Anderson, *Health Sciences*
Gloria Deckard, *Health Policy and Management*
Keith Revell, *Public Administration*
Mary Helen Hayden, *Social Work*
Robert Hogner, *Business*
Diann Newman, *Hospitality Management*

Professional Leadership is a broad set of skills designed to assist graduates to successfully interact with their colleagues in the workplace. Personal skill development focuses on the individual, the group and the society. The goal of this interdisciplinary certificate program is to foster leadership in the FIU student body members. Through involvement with the campus and community, students will become engaged in their own professional leadership education.

The Certificate Program requires completion of 18 credit hours of coursework. All students are required to take a common introductory course – Exploring Leadership – and two other core courses. Then students must fulfill certificate requirements by taking three electives consistent with their academic and career objectives.

Required Course (3)

IHS 3204	Exploring Leadership: Yourself, Your Organizations and Your Communities	3

Core Courses (6)

Values/Ethics

IHS 4111	Values, Ethics and Conflict Resolution	3
	or	
URS 4061	Values, Ethics and Conflict Resolution	3

Communication

URS 3438	Communication Skills for Policy and Management	3
	or	
COM 3110	Business and Professional Communication	3

Self-Awareness

SOW 3801	Self-Awareness and Self-Modification for Practice	3

Electives

Urban Studies

URS 4643	Introduction to Management of Public, NonProfit and Health Organizations	3

Public Administration

PAD 4141	Citizen Participation	3
PAD 3034	Policy Development	3
PAF 4260	Public Relations	3

Health Services Administration

HSA 3180	Management for the Health Professions	3
HSA 4183	Applied Management in Health Care Organizations	3

Health Sciences

HSC 3701	Leadership and Management in Health Sciences Professions	3

Dietetics and Nutrition

DIE 4365	Dietetic Management of Nutrition Programs	3

Nursing

NUR 4827C	Leadership in Nursing	3

Social Work

SOW 4322	Methods of Social Work Practice II (Groups)	3
SOW 4332	Methods of Social Work Practice III (Community Organizations)	3

Arts and Sciences

SPC 4445	Corporate Communication & Leadership Dynamics	3

Business

MAN 3025	Organization and Management	3
MAN 4120	Intergroup Relations in Organizations	3
MAN 4741	Managing Change in Organizations	3
MAN 4711	Business-Community Leadership	3

Hospitality Management

HFT 4545	Leadership Training for Team Building	3

Certificate in Urban Affairs

The certificate program requires completion of 15 credit hours of course work. Students are encouraged to take introductory courses in microeconomics and political science before enrolling in the program. All students are required to take a common introductory course—Introduction to Urban and Regional Studies—and two other core courses. Then students fulfill certificate requirements by taking two electives consistent with their academic and career objectives.

Required Course (3)

URS 3001	Introduction to Urban and Regional Studies	3

Core Courses (6)

Students must take two of the following four courses:

POS 3142	Urban Politics	3
ECP 3613	Introduction to Urban Economics	3
SYD 4610	Urban Sociology	3
URP 5313	Introduction to Urban Planning and Growth Management	3

Electives 6

Students must take two courses from the following list to complete certificate requirements:

College of Business

MAN 4065	Business Ethics	3

MAN 4102	Women and Men in Management	3
MAN 4120	Intergroup Relations in Organization	3
MAN 4701	Business and Society	3
MAN 4731	Modern Business History	3
MAN 4742	Business and the Physical Environment	3

School of Architecture

ARC 4058	Computer Applications in Architecture	3
LAA 5715	Architectural History and Theory	3

Department of Economics

ECP 3123	Economics of Poverty	3
ECP 4143	Economics of Racism	3

College of Education

EDF 3521	Education in History	3
EDF 3723	Schooling in America	3

College of Health

DIE 3317	Dietetics and Community Health	3
HUN 3191	World Nutrition	3

School of Policy and Management

CCJ 3011	The Nature and Causes of Crime	3
CJE 4410	Police and the Community	3
HSA 3103	Health and Social Service Delivery Systems	3
PAD 3804	Government and Administration of Metropolitan Areas	3
URS 4112	Computer Applications for Urban Services	3
URS 5505	Economic Development and Urban Revitalization	3

Department of Political Science

POS 4074	Latino Politics	3
POS 4122	State Government and Politics	3
POS 4152	Conflict and Change in American Cities	3
POS 4154	Topics in Urban Politics and Policy	3
POS 4314	American Ethnic Politics	3

Department of Sociology and Anthropology

ANT 3442	Urban Anthropology	3
SYD 3620	Miami: An Urban Laboratory	3
SYG 2010	Social Problems	3

College of Social Work, Justice, and Public Affairs

Dean **Ray Thomlison**
Associate Dean **Lourdes Rassi**

Directors:
School of Social Work **Paul H. Stuart**
School of Criminal Justice **Lisa Stolzenberg**
School of Public Administation **Meredith Newman**

Faculty

Abeloff, Jennifer, M.S. *(Florida State University), Visiting Instructor, Social Work*

Beaulaurier, Richard, Ph.D. *(University of Southern California), Associate Professor, Social Work*

Becker, Fred, Ph.D. *(University of Oklahoma), Associate Professor, Public Administration*

Berkman, Ronald M., Ph.D. *(Princeton University), Professor, Public Administration and Provost*

Byrnes, Patrick J., M.P.A. *(Florida International University), Instructor, Criminal Justice*

Cohen, David, Ph.D. *(University of California-Berkeley), Professor, Social Work*

Cohn, Ellen, Ph.D. *(University of Cambridge), Associate Professor, Criminal Justice*

D'Alessio, Stewart, Ph.D. *(Florida State University), Associate Professor, Criminal Justice*

Dalehite, Esteban, M.P.A. *(University of Texas, Austin), Assistant Professor, Public Administration*

De La Rosa, Mario, Ph.D. *(Ohio State University), Associate Professor, Social Work*

DiGiovani, Laura, M.S.W. *(University of Texas at Austin), Instructor, Social Work*

Dumaine, Marian, Ph.D. *(Florida International University), Clinical Associate Professor, Social Work and Cooridnator of Field Education, Social Work*

Flexon, Jamie L., Ph.D. *(State University of New York at Albany), Assistant Professor, Crminal Justice*

Frank, Howard, Ph.D. *(Florida State University), Associate Professor, Public Administration*

Ganapati, Emel, Ph.D. *(University of Southern California), Assistant Professor, Public Administration*

Ganapati, Sukumar, Ph.D. *(University of Southern California), Assistant Professor, Public Administration*

Garcia-Zamor, Jean-Claude, Ph.D. *(New York University), Professor, Public Administration*

Gil, Andres, Ph.D. *(University of Miami), Professor, Social Work*

Guerette, Rob, Ph.D. *(University of North Carolina, Charlotte), Assistant Professor, College of Social Work, Justice and Public Affairs, Criminal Justice*

Hayden, Mary Helen,Ed.D., M.S.W., ACSW, L.C.S.W. *(Florida State University), Assistant Professor and Associate Director Academic Programs, Social Work*

Jones, Rosa L., D.S.W., ACSW, L.C.S.W. *(Howard University), Associate Professor, Social Work and Vice President, Student Affairs and Undergraduate Education*

Kakar, Suman, Ph.D. *(University of Florida), Associate Professor, Criminal Justice*

Lowe, Gary R., Ph.D. *(University of Iowa), Visiting Professor and Acting Director, Social Work*

Macgowan, Mark J., Ph.D., L.C.S.W. *(Barry University), Associate Professor, Social Work*

Martinez, Ramiro, Ph.D. *(Ohio State University), Professor, Criminal Justice*

McLaren, Martha, M.S.W. *(Columbia University in the City of New York), Instructor, Social Work*

Murray, Edward P., Ph.D. *(University of Massachusetts, Amherst), Assistant Professor, Public Administration*

Nin, Rafis, M.S.W. *(Hunter College of New York), Instructor, Social Work*

Patterson, Valerie L., Ph.D. *(Florida International University), Assistant Professor, Public Adminstration*

Potocky-Tripodi, Miriam, Ph.D. *(University of Kansas), Associate Professor, Social Work*

Rassi, Lourdes, Ph.D. *(University of Miami), Associate Director and Associate Dean, College of Social Work, Justice, and Public Affairs, Public Administration*

Revell, Keith D., Ph.D. *(University of Virginia), Associate Professor, Public Administration*

Rice, Christopher, Ph.D. *(Washington University), Associate Professor, Social Work*

Rosenbaum, Allan, Ph.D. *(University of Chicago), Professor, Public Administration*

Salas, Luis P., J.D. *(Wake Forest University), Professor, Center of the Administration of Justice*

Smith, Betsy A., Ph.D. *(State University of New York at Buffalo), Associate Professor, Social Work*

Stolzenberg, Lisa, Ph.D. *(Florida State University), Associate Professor and Director, Criminal Justice*

Terry, W. Clinton, Ph.D. *(University of California-Santa Barbara), Associate Professor, Criminal Justice*

Thomlison, Barbara, Ph.D. *(University of Toronto), Professor, Social Work Director, Institute for Children and Families At Risk*

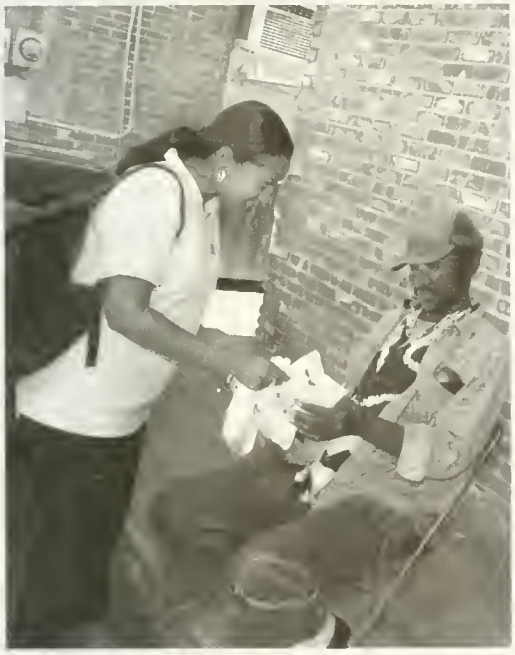
Thomlison, Ray, Ph.D. *(University of Toronto), Professor, Social Work and Dean, College of Social Work, Justice, and Public Affairs*

Van Den Bergh, Nan, Ph.D. *(University of Pittsburgh), Associate Professor, Social Work*

Wagner, Eric F., Ph.D. *(University of Pittsburgh), Professor, Social Work and Director, Teen Intervention Project*

Wong, Stephen, Ph.D. *(Western Michigan University), Associate Professor, Social Work*

FLORIDA INTERNATIONAL UNIVERSITY



ROBERT STEMPEL
SCHOOL OF
public health

Robert R. Stempel School of Public Health

Michele Ciccazzo, *Interim Dean and Associate Professor*
Naser Ahmed, *Chair, Epidemiology and Biostatistics*
Gloria Deckard, *Chair, Health Policy and Management*
Julia Gonzalez-Pampin, *Coordinator of Student and Alumni Affairs*
Fatma Huffman, *Chair, Dietetics and Nutrition*
H. Virginia McCoy, *Associate Dean of Academic Affairs and Outreach/Public Health and Chair, Health Promotion and Disease Prevention*
Christina Rajkumar, *Coordinator of Student and Alumni Affairs*
Deodatta Roy, *Chair, Environmental and Occupational Health*
Carrie Sanchez, *Assistant Director of Student and Alumni Affairs*
Saul Sztam, *Assistant Dean and Director of Student and Alumni Affairs*

The Robert R. Stempel School of Public Health offers programs of study leading to a Bachelor's degrees in Dietetics and Nutrition and Health Services Administration. The Dietetics and Nutrition Department also offers an accredited pre-professional practice program. A minor is offered in Nutrition. A Master's degree in Public Health (with specializations in biostatistics, environmental and occupational health, epidemiology, health promotion and disease prevention, and health policy and management, and community nutrition); a Ph.D. in Public Health (with specializations in community nutrition, environmental and occupational health, epidemiology, and health promotion and disease prevention); a Master's, and a Ph.D. degree in Dietetics and Nutrition; and a Master's degree in Health Services Administration are also offered.

All degrees are accredited by their respective professional accrediting agencies, including the Council on Education for Public Health, Commission on Accreditation for Dietetic Education, and the Commission on Accreditation of Healthcare Management Education.

The mission of the Robert Stempel School of Public Health at Florida International University is:

- To educate and train future leaders, researchers, and health professionals from diverse backgrounds;
- To conduct innovative research and to translate that research into policy, program, and practice, and
- To promote healthy lives for the diverse communities of South Florida, especially the underserved, and the peoples of the Caribbean and Latin America.

Each program is committed to preparing students for the pursuit of excellence in professional and scholarly endeavors as well as life-long learning processes in the era of globalization, scientific and technological advances, and demographic changes. We clearly recognize that the health and well-being of any community is affected by interaction among multiple determinants. Hence, the curriculum offered by all programs within the school is interdisciplinary. Our emphasis on involving practitioners, academic researchers, and the community to improve and promote public health is ideal for studying the impact of environmental, social and behavioral factors, beyond the biological risk factors, on public's health.

Office of Student and Alumni Affairs

The Office of Student and Alumni Affairs provides expertise and direction in many university administrative functions. The staff will assist students and faculty, while following the policies and procedures of the university. The office works with department chairs to coordinate admissions and advising services, and provides students with information on scholarships, assistantships, stipends, curriculum, requirement changes, internships, and graduation application deadlines. The office serves as a liaison between the Robert Stempel School of Public Health and university-wide student support services. The office coordinates alumni services and communication.

The SSPH has a dynamic, professional staff dedicated to promoting the school and assisting and supporting our students while they pursue their academic goals.

Bachelor of Health Services Administration (120 credits)

Admissions Requirements

Students seeking admission into the bachelor's program must meet the following minimum requirements:

1. An Associate in Arts degree or its equivalent (e.g., Associate in Science) in lower-division course work (60 semester hours) completed in the first two years of preparation at an accredited college or university, with a minimum 2.0 cumulative grade point average.
2. The maximum of lower-division transfer credits is 60 semester hours. Upper division credit hours from another institution or department may be transferred up to a maximum of 30 semester hours toward the fulfillment of required or elective courses in the program.
3. Admitted applicants must meet all general educational requirements of the University. Students with one deficiency will be admitted and applicants with two or more deficiencies will only be admitted with Program Coordinator approval.
4. Students must comply with the State University System Common Prerequisites for Health Services Administration programs:
   ACG 2071 Managerial Accounting
   CGS 2060 Introduction to Microcomputers
   ECO 2023 Principles of Microeconomics
5. Any other general admissions requirements of undergraduate programs at the University as found in the catalog of the current academic year.
6. Students who have not completed the admission process may register as Affiliated Students pending admission. A maximum of 15 semester hours taken as an affiliated student can be used toward a degree. Affiliated status does not guarantee admission to the bachelor's program.

Admissions

Once students complete 60 semester hours, they may apply for admission into the program. FIU undergraduates who have met the Core or the General Education lower division requirements, who have passed the CLAST, and who have a grade point average (GPA) of above a 2.0 will qualify for admission to the program. (Meeting these

requirements will not guarantee admission to the program.)

Program Requirements

All program students completing the BHSA are also subject to undergraduate student regulations and degree requirements governed by the policies of Florida International University and the State University System. Undergraduate HSA majors must receive a grade of 'C' or higher in all core courses.

Bachelor of Science in Dietetics and Nutrition (132 credits)

Coodinated Program

The Coordinated Program (CP) is currently granted continuing accreditation status by The Commission on Accreditation of Dietetics Education of The American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, Illinios 60606, (312) 899-0040, ext. 5400. The program combines didactic requirements with supervised practicum experience. Graduates from the CP are eligible to sit for the National Registration Examination for Dietitians.

Admissions Requirements

The student must make formal application to the program by March 1 before Fall admission. This special application form can be obtained from the department. Criteria for admission includes grades in prerequisite course work, work experience and letter of application. Students accepted into the CP will undergo a background screening and drug profile. Practicum courses are completed at the end of coursework and take a minimum of two semesters full time work to complete. Part-time completion of the program can be arranged. Supervised practice experiences are available in several hospitals and other health agencies. Students must satisfactorily complete a written comprehensive exam prior to supervised practice placement to graduate from the program.

Costs of the program to students in addition to tuition and fees (including a $50/credit practicum fee) include: providing transportation to practicum sites, lab coats and professional attire, annual laboratory tests at the student health services clinic.

Students must receive a grade of "C" or higher in all courses in the department.

Bachelor of Science in Dietetics and Nutrition

Degree Program Hours: 120

Didactic Program

The Didactic Program in Dietetics is currently granted developmental accreditation by The Commission on Accreditation of Dietetics Education of The American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, Illinios, 60606, (312) 899-0040, ext. 5400. Upon completion of this program, all students are eligible to receive a Didactic Program Verification Statement and may apply to an accredited dietetic internship program to obtain the supervised practice experience required to become eligible to sit for the National Registration Examination for Dietitians.

To be admitted into the program, undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Students must receive a grade of "C" or higher in all courses in the department.

Minor in Nutrition

A twelve-credit nutrition course sequence at the undergraduate level affords students the opportunity to study food and nutrients, their physiological functions, normal nutritional requirements, socioeconomic influences on food choices and other aspects of food technology. The required science foundation courses provide the necessary background of chemistry and biological sciences to understand the physiological and biochemical basis of nutrition, as a multi-disciplinary science with relevance to health. Students minoring in nutrition learn to interpret nutrition research and contemporary claims and theories as a basis for improving food habits. Students interested in entering health professional fields of physical or occupational therapy, schools of medicine, dentistry or veterinary medicine find the nutrition minor relevant to their future careers because of diet and health relationships.

This nutrition minor will not meet licensure requirements for qualifications as a nutritionist in the State of Florida. A license is required to provide nutritional counseling to individuals.

Minor in Health Services Administration

A five course minor in Health Services Administration is available to baccalaureate degree seeking students who are interested in careers in health services administration or who wish to examine the administrative aspects of health services delivery.

Fifteen hours in Health Services Administration are required: Six required credit hours and nine to be selected from the following list.

Dietetics and Nutrition

Fatma Huffman, *Professor and Chair*
Marianna Baum, *Professor*
Adriana Campa, *Research Assistant Professor*
Michele Ciccazzo, *Associate Professor and Interim Dean of the Stempel School of Public Health*
Katharine R. Curry, *Professor Emeritus*
Victoria Hammer Castellanos, *Associate Professor*
Zisca Dixon, *Associate Professor*
Penelope S. Easton, *Professor Emeritus*
Evelyn B. Enrione, *Associate Professor*
Valerie George, *Research Associate Professor*
Dona Greenwood, *Clinical Assistant Professor, Director, Coordinated Program and Director, Didactic Program*
Susan P. Himburg, *Professor*
Marcia Magnus, *Associate Professor*
Liza Merly, *Clinical Instructor*
Tania Rivera, *Clinical Assistant Professor*
Dian Weddle, *Associate Professor*
Nancy S. Wellman, *Professor*

The Program in Dietetics and Nutrition offers a major leading to a baccalaureate degree in dietetics and nutrition, and courses in nutrition for interested students. The program also offers Master of Science and Doctor of Philosophy degrees in dietetics and nutrition. The undergraduate programs are designed to assist the student to gain basic practitioner knowledge and skills.

Bachelor of Science in Dietetics and Nutrition

Degree Program Hours: 132

Coordinated Program

The Coordinated Program (CP) is currently granted continuing accreditation status by The Commission on Accreditation of Dietetics Education of The American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, Illinios 60606, (312) 899-0040, ext. 5400. The program combines didactic requirements with supervised practicum experience. Graduates from the CP are eligible to sit for the National Registration Examination for Dietitians. Students must receive a grade of "C" or higher in all courses in the department (prefix DIE, FOS, and HUN).

The supervised practice placement sites used by the Dietetics and Nutrition Department require the disclosure of conviction records for misdemeanors and/or felonies and current screening for drug use. Students are required to submit to federal background checks and drug screening tests prior to the initiation of the supervised practice. Students are required to complete and pass an adult CPR course. The student is solely responsible for the financial cost of such screenings and background checks. Findings in background checks and/or drug screening tests may affect a student's ability to participate in the supervised practice rotations and may not be able to complete the program.

Common Prerequisites[1]

Lower Division Preparation

Students desiring to major in general dietetics and nutrition need the following FIU course equivalents in addition to completing the general education requirements:

MCB 2000	Introductory Microbiology	3
MCB 2000L	Introductory Microbiology Lab	1
BSC 1010	General Biology	3
STA 3111	Statistics I	3
	or	
STA 3145	Statistics for the Health Professions	3
CHM 1045	General Chemistry I	4
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry I Lab	1
CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry II Lab	1
	or	
CHM 2200 may substitute for CHM 2210 and 2211		
CHM 2200	Survey of Organic Chemistry	3
CHM 2200L	Survey of Organic Chemistry Lab	1
ECO 2013	Principles of Macroeconomics	3
HUN 2201	Principles of Nutrition	3
INP 2002	Introduction to Industrial/Organizational Psychology	3
	or	
PSY 2020	Introduction to Psychology	3
MAC 1105	College Algebra	3
ANT 3451	Anthropology of Race and Religion	3
	or	
COM 3461	Intercultural/Interracial Communication	3
	or	
SYP 3000	The Individual in Society	3

[1]Prerequisites for the Coordinated Program. Didactic students may complete during program.

FIU undergraduates must have met all lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Basic computer literacy is expected.

Upper Division Program

Required Courses (72 credits)

Junior Year

Fall Semester: (14 credits)

DIE 3005	Orientation to Dietetics	1
FOS 3021	Fundamentals of Food	3
FOS 3021L	Fundamentals of Food Lab	1
HUN 4403	Life Cycle Nutrition	3
HUN 4240	Nutrition and Biochemistry	3
	or	
BCH 3033	General Biochemistry	4
PCB 3702	Intermediate Physiology	3
	or	
HSC 3549	Clinical Physiology for Health Professionals	3

Spring Semester: (14 credits)

DIE 3244	Medical Nutrition Therapy	3
DIE 3244L	Medical Nutrition Therapy Lab	1
HUN 4241	Advanced Nutrition	3
FOS 4041	Food Science	3
FOS 4041L	Food Science Lab	1
FSS 3233C	Institutional Foodservice Production	3

Summer Semester: (8 credits)

DIE 4246	Clinical Nutrition	3
DIE 4246L	Clinical Nutrition Lab	1
DIE 3125	Management of Dietary Systems	3
DIE 3125L	Management of Dietary Systems Lab	1

Senior Year

Fall Semester: (13 credits)

DIE 3434	Nutrition Education	2
DIE 3434L	Nutrition Education Lab	1
DIE 4365	Dietetic Management of Nutrition Programs	3
DIE 4377	Applied Dietetic Management of Nutrition Programs	1
DIE 4564	Evidence Based Research in Dietetics	3
HUN 4404	Nutrition, Physical Activity and Special Populations	3

Spring Semester: (11 credits)

DIE 3317	Dietetics in Community Health	3
DIE 4435	Nutrition Counseling	3
DIE 4435L	Nutrition Counseling Lab	1
DIE 4506	Seminar in Dietetics and Nutrition	3
DIE 4963	Comprehensive Dietetic Examination	1

Summer Semester: (6 credits)

DIE 4537	Supervised Dietetics Practice I	1-6

Fall Semester: (6 credits)

DIE 4538	Supervised Dietetics Practice II	1-6

Bachelor of Science in Dietetics and Nutrition

Degree Program Hour: 120

Didactic Program

The Didactic Program in Dietetics is currently granted developmental accreditation by The Commission on Accreditation of Dietetics Education of The American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, Illinois, 60606, (312) 899-0040, ext. 5400. Upon completion of this program, all students are eligible to receive a Didactic Program Verification Statement and may apply to an accredited dietetic internship program to obtain the supervised practice experience required to become eligible to sit for the National Registration Examination for Dietitians.

Students must receive a grade of "C" or higher in all courses in the department (prefix DIE, FOS, and HUN).

General Emphasis

Upper Division Program

Required Courses (60 credits)

BCH 3033	General Biochemistry	4
	or	
HUN 4240	Nutrition and Biochemistry	3
DIE 3005	Orientation to Dietetics	1
DIE 3125	Management of Dietary Systems	3
DIE 3125L	Management of Dietary Systems Lab	1
DIE 3244	Medical Nutrition Therapy	3
DIE 3244L	Medical Nutrition Therapy Lab	1
DIE 3317	Dietetics in Community Health	3
DIE 3434	Nutrition Education	2
DIE 3434L	Nutrition Education Lab	1
DIE 4246	Clinical Nutrition	3
DIE 4246L	Clinical Nutrition Lab	1
DIE 4365	Management of Nutrition Programs	3
DIE 4377	Applied Dietetic Management of Nutrition Programs	1
DIE 4435	Nutrition Counseling	3
DIE 4435L	Nutrition Counseling Lab	1
DIE 4506	Senior Seminar	3
DIE 4564	Evidence Based Research in Dietetics	3
DIE 4963	Comprehensive Dietetic Examination	1
FOS 3021	Fundamentals of Food	3
FOS 3021L	Fundamentals of Food Lab	1
PCB 3702	Intermediate Physiology	3
	or	
HSC 3549	Clinical Physiology for Health Professionals	3
FOS 4041	Food Science	3
FOS 4041L	Food Science Lab	1
FSS 3233C	Institutional Food Service Production	3
HUN 4241	Advanced Nutrition	3
HUN 4403	Life Cycle Nutrition	3
HUN 4404	Nutrition, Physical Activity and Special Populations	3

Recommended Electives

Selected courses in: computer science, education, statistics, social work, health science, adult education, business, anthropology, sociology.

Minor in Nutrition

A twelve-credit nutrition course sequence at the undergraduate level affords students the opportunity to study food and nutrients, their physiological functions, normal nutritional requirements, socioeconomic influences on food choices and other aspects of food technology. The required science foundation courses provide the necessary background of chemistry and biological sciences to understand the physiological and biochemical basis of nutrition, as a multi-disciplinary science with relevance to health. Students minoring in nutrition learn to interpret nutrition research and contemporary claims and theories as a basis for improving food habits. Students interested in entering health professional fields of physical or occupational therapy, schools of medicine, dentistry or veterinary medicine find the nutrition minor relevant to their future careers because of diet and health relationships.

This nutrition minor will not meet licensure requirements for qualifications as a nutritionist in the State of Florida. A license is required to provide nutritional counseling to individuals.

Minor Requirements

HUN 2201	Principles of Nutrition	3
HUN 4241	Advanced Nutrition[1]	3
HUN 4403	Life Cycle Nutrition	3

[1]Prerequisite: Human Physiology, Organic Chemistry; Corequisite: Biochemistry

In addition, one of the following courses:

HUN 3191	World Nutrition	3
FOS 3021	Fundamentals of Food	3
	and	
FOS 3021L	Fundamentals of Food Lab	1
FOS 3004	Food and the Consumer	3
FOS 4041	Food Science[1]	3
	and	
FOS 4041L	Food Science Lab[1]	1

[1]Prerequisite: FOS 3021, FOS 3021L, and HUN 2201

Note: The following science courses are required to fulfill the prerequisites in the nutrition minor:

CHM 1045	General Chemistry I
CHM 1046	General Chemistry II
CHM 2210	Organic Chemistry I
CHM 2211	Organic Chemistry II or CHM 2200 for CHM 2210 and CHM 2211
CHM 2200	Survey of Organic Chemistry
BCH 3033	General Biochemistry
	or
HUN 4240	Nutrition and Biochemistry
PCB 3702	Intermediate Physiology
	or
PCB 3703, 3704	Human Physiology I, II
	or
HSC 3549	Clinical Physiology for Health Professionals

FOR A COMPLETE LISTING OF COURSE DESCRIPTIONS AND PREREQUISITES GO TO PAGES 501-504

Health Policy and Management

Gloria Deckard, *Chair and Associate Professor*
Nancy Borkowski, *Visiting Faculty*
Gulcin Gumus, *Assistant Professor*
Andrew Miracle, *Professor Emeritus*
Frederick Newman, *Professor*
Max Rothman, *Senior Lecturer*
Vandon White, *Professor Emeritus*
Mustafa Younis, *Associate Professor*

The Program in Health Policy and Management offers graduate and undergraduate studies leading to Bachelor's and Master's degrees in Health Services Administration.

The Health Services Administration program is fully accredited by the Commission on Accreditation of Healthcare Management Education (CAHME).

The baccalaureate program provides professional education which prepares students for entry- and mid-level management functions in community based health care settings.

The management of health services occurs in an environment of organizational and technological change. Individuals charged with managerial responsibilities must be grounded in a high degree of formal professional training followed by lifelong learning which fosters their continuous professional growth. Many of the same skills needed for executive management are now also required to provide administrative leadership in staffing, directing, coordinating, and controlling the operational resources of administrative and clinical units in such organizations.

Health Policy and Management Programs

The Bachelor of Health Services Administration (BHSA) qualifies students for entry-level management positions in health services delivery organizations. The program provides professional education for administrative occupations in various health care settings. The degree also prepares individuals for further study in health services administration or public health. It is an excellent career development pathway for persons licensed in clinical health and medical care professions but lacking an undergraduate degree.

Bachelor of Health Services Administration

Degree Program Hours: 120

Courses are sequenced to enhance the development of competencies as students progress through the curriculum. Students need to pay particular attention to proper sequencing and course prerequisites.

Foundation Courses: (12)

Foundation Courses must be taken prior to Core courses. It is recommended that HSA 3103 and HSA 3180 be taken the first semester in the Program.

HSA 3103	Health and Social Service Delivery Systems	3
HSA 3180	Management for Health the Health Professions	3
PHC 4510	Statistical Applications	3
URS 3438	Communication Skills for Policy and Management	3

Core and Integrative Courses (36): (Prerequisite: Completion of at least nine (9) hours of Foundation Coursework)

HSA 4700	Fundamentals of Health Services Research	3
HSA 4110	Health Organizational Behavior	3
HSA 4430	Health Economics	3
PHC 4009	Principles of Applied Epidemiology	3
HSA 4170	Health Care Financial Management	3
HSA 4184	Human Resource Management	3
HSA 4421	Legal Aspects and Legislation in Health Care	3
HSA 4141	Program Planning and Evaluation	3
IHS 4111	Values, Ethics, & Conflict Resolution	3
HSA 4150	People, Power, and Politics in Health Affairs	3
HSA 4192	Health Management Systems Engineering	3

Integrative Course

HSA 4113	Issues and Trends in Health Care Delivery	3

(To be taken in final semester of program)

Elective Courses: (12)

Elective courses may include upper-division courses offered by other University departments with the approval of the Health Policy and Management Curriculum Committee.

Non-Degree Seeking Student

Non-degree seeking students who wish to register for 5000-level courses may do so with the permission of the instructor. University regulations pertaining to non-degree seeking status must be observed.

Internship

Students electing an administrative internship generally begin their internship in the final semester of the degree requirement. If this period of field placement is evaluated by the Faculty Preceptor as successful, the student will graduate at the end of that semester provided that all other requirements have been met.

All students must achieve a GPA of 2.5 or higher in all upper-division course work and submit a residency plan for faculty approval before they are permitted to enroll in the Administrative Internship (HSA 4850). Students must apply for the internship, have an educational plan approved by the coordinator, and be placed in an agency by the Faculty Preceptor in the semester prior to registration for the administrative internship.

For further information regarding internship placements, reference should be made to the Program Policy and Procedures Statement on the Administrative Internship, which appear on the HPM website.

Minor in Health Services Administration

A five course minor in Health Services Administration is available to baccalaureate degree seeking students who are interested in careers in health services administration or who wish to examine the administrative aspects of health services delivery.

Fifteen hours in Health Services Administration are required: Six required credit hours and nine to be selected from the following list.

Required Courses (6 credit hours)

HSA 3103	Health and Social Service Delivery Systems	3
HSA 3180	Management for Health Professions	3

To be taken in first semester of minor matriculation. These courses are prerequisite for electives and no substitutions or waivers will be granted.

Elective Courses (9 credit hours)

The other nine hours may be selected from the following, providing all prerequisites have been met:

HSA 4110	Health Care Organizational Behavior	3
HSA 4113*	Issues and Trends in Health Care	3
HSA 4150	People, Power and Politics in Health Care	3
HSA 4170	Health Care Financial Management	3
HSA 4184	Human Resources Management	3
HSA 4421	Legal Aspects and Legislation in Health Care	3

*HSA 4113 is an integrative course and should be taken as the final course in the sequence.

It is the student's responsibility to contact the department from which the student wishes to receive the minor when they apply for graduation. This will ensure that the minor will be posted on their transcript.

FOR A COMPLETE LISTING OF COURSE DESCRIPTIONS AND PREREQUISITES GO TO PAGES 501-504

Course Descriptions

Definition of Prefixes

DIE - Dietetics; FOS - Food Science; FSS - Food Service Systems; HSA - Health Services Administration; HSC - Health Sciences; HUN - Human Nutrition; PHC - Public Health; URS - Urban and Regional Studies

DIE 3005 Orientation to Dietetics (1). Survey of role and responsibilities of the dietitian. Legal and ethical considerations necessary for the student dietitian in clinical experiences. Educational and personal qualifications for specialization in dietetics. Prerequisite: HUN 2201. (SS)

DIE 3125 Management of Dietary Systems (3). Survey of various types of institutional food service systems; management concepts in planning, implementing, and evaluating food service systems. Prerequisite or Corequisite: FSS 3233C. (SS)

DIE 3125L Applied Management of Dietary Systems (1). Application of principles of food service production and management including production, service, food sanitation and safety. Prerequisite: FSS 3233C. Corequisite: DIE 3125.

DIE 3175 Dietetic Management Practicum (4). Developing skills for DIE 3125 and DIE 4365. Clinical assignments in several food service institutions in this area. Clinical component: open only to students in the Coordinated Program. Prerequisites: DIE 3355 and DIE 4277. (F)

DIE 3244 Medical Nutrition Therapy (3). Techniques of assessing nutritional status and adjusting nutrient/energy intake to accommodate medical treatment. Corequisite: DIE 3244L. Prerequisites: Organic Chemistry (CHM 2200 or equivalent), Physiology (HSC 3549 or equivalent). Pre or Corequisite: HUN 4403. (F)

DIE 3244L Medical Nutrition Therapy Lab (1). Application of nutritional assessment and dietary prescriptions to accommodate medical treatment. Corequisite: DIE 3244. (F)

DIE 3317 Dietetics in Community Health (3). Study of community agencies providing nutrition guidance for differing age groups. Emphasis on influencing nutrition and health care policy. Prerequisites: HUN 2201, DIE 3005. Prerequisite or Corequisite: HUN 4403. (F)

DIE 3355 Dietetics in Community Health Practicum (2). Observation and participation in activities of community agencies. Nutrition education and counseling experiences. Clinical component: Open only to students in the Coordinated Program. Corequisite: DIE 3317. (F)

DIE 3434 Nutrition Education (2). Planning for groups/individual basic nutrition and clinical nutrition education, and working with the instructional media. Prerequisite or Corequisite: FOS 3021. Prerequisite: HUN 4403. Corequisite: Nutrition Education Lab. (SS)

DIE 3434L Nutrition Education Laboratory (1). Students plan and practice various forms of nutrition education individual, groups and instructional media. (SS)

DIE 4195 Special Problems in Dietetic Administration (1-3). In-depth study of a problem in dietetic administration chosen to coincide with a student's interest and career goals. Student will develop objectives stated in behavioral terms and demonstrate skills in information gathering, analysis, and technical writing. Prerequisite: Permission of the instructor.

DIE 4246 Clinical Nutrition (3). Study of the complex dietetic problems accompanying metabolic disorders. Determination of nutrient requirements based on pathophysiological conditions. Prerequisite: DIE 3244. (S)

DIE 4246L Clinical Nutrition Laboratory (1). Application of nutrient requirements for the treatment of complex pathophysiological conditions. Prerequisites: DIE 3244 and DIE 3244L. Corequisite: DIE 4246. (S)

DIE 4277 Clinical Nutrition Practicum (4). Participation in activities in clinical affiliations focusing on nutritional assessment, planning, treatment and follow-up of patients. Clinical component: open only to students in the Coordinated Program. Corequisite: DIE 4246. Prerequisite: DIE 3355. (S)

DIE 4296 Special Problems in General Dietetics (1-3). In-depth study of a problem chosen to coincide with student's interest and career goals. Student develops behavioral objectives and demonstrates skills in information gathering, analysis and technical writing. Prerequisite: Permission of the instructor. (F,S,SS)

DIE 4365 Dietetic Management of Nutrition Programs (3). Advanced concepts of managerial functions as an institutional consultant, a member of a community nutrition program, a private therapeutic consultant, full time institutional food service administrator. Advanced standing required. Prerequisites: DIE 3125 or permission of the instructor, basic competency in management principles. (F)

DIE 4377 Applied Dietetic Management of Nutrition Programs (1). Observation and participation in community agencies, institutions, and simulated setting the development of entry level competencies in the management of nutrition and food service programs. Corequisite: DIE 4365. (F)

DIE 4435 Nutrition Counseling and Communication Skills (3). Nutrition counseling methods and communication skills for development of entry level competencies. Advanced standing in dietetics required. Prerequisites: DIE 3244, DIE 3434, or DIE 4277. Corequisites: DIE 4246, DIE 4435L.

DIE 4435L Nutrition Counseling and Communication Skills Lab (1). Small group video recorded practice in instruction counseling communication skills. Prerequisite: Advanced standing in dietetics. Corequisite: DIE 4435. (S)

DIE 4506 Seminar in Dietetics and Nutrition (3). Professional skills development for career effectiveness in today's job world; emphasis on speaking and writing related to contemporary nutrition issues. Majors only, senior standing. (F,S)

DIE 4536 Advanced Practicum in Dietetics (9). In-depth study combining theoretical concepts and clinical experience. Learning experience planned cooperatively by the student, campus instructor, and clinical instructor to meet student needs and goals. Prerequisites: DIE 4246, DIE 4277, and permission of Director of the Coordinated Program. Clinical component: Open only to students in the Coordinated Program. (S)

DIE 4537 Supervised Dietetics Practice I (1-6). Practical application of knowledge and skills in a supervised practice setting. Prerequisites: Permission of the instructor. (SS)

DIE 4538 Supervised Dietetics Practice II (1-6). Continuation of practical application of knowledge and skills in a supervised practice setting. Prerequisite: Permission of the instructor.

DIE 4564 Evidence Based Research in Dietetics (3). Research methodology for planning, conducting and analyzing evidence based research in applied dietetics. (F)

DIE 4963 Comprehensive Dietetic Examination (1). A comprehensive examination of the dietetics and nutrition curriculum. Prerequisite: Senior standing. (F,S,SS)

FOS 3004 Food and the Consumer (3). Study of purchasing, storage, and preparation of food. Consideration of life style influences on food choices. Designed to develop skills in purchasing and preparing foods to meet personal, social, and physical needs. Demonstration laboratory included.

FOS 3021 Fundamentals of Food (3). Study of selection, processing, and preparation of food with attention to quality and nutrient retention. Corequisite: FOS 3021L. (F,SS)

FOS 3021L Fundamentals of Food Laboratory (1). Techniques of food preparation to maintain nutrients and food quality. Corequisite: FOS 3021. (F,SS)

FOS 4041 Food Science (3). Physical and chemical changes in food occurring as a result of various methods of processing, preparation, and storage. Prerequisites: Organic Chemistry, HUN 3122 or HUN 2201, FOS 3021, or equivalents. Corequisite: FOS 4041L. (S)

FOS 4041L Food Science Laboratory (1). Experimental laboratory in the physical and chemical characteristics of food. Corequisite: FOS 4041. (S)

FSS 3316 Food Science For Institutions (3). Proper food handling in institutional settings with use of sound management principles closely coordinated with food science advances and government regulations. Laboratory and field trips to strengthen theoretical concepts. Prerequisite: FOS 3021.

HSA 3103 Health and Social Service Delivery Systems (3). Students examine the history and current functions of health and social services delivery systems in the United States. Focus is on the components, their interaction and internal/external controls.

HSA 3180 Management for the Health Professions (3). Fundamental theories, principles, and concepts of management are surveyed to prepare the student for a middle-management position in health care. Case studies are utilized for practical application.

HSA 4104 Team Approach to Health Service Delivery (3). Team formation, structure, composition, maturity, growth, and the process are identified. Team management in health facilities are discussed. Prerequisites: HSA 3103, HSA 3180 or permission of the instructor.

HSA 4110 Health Care Organizational Behavior (3). Analysis of organizational behavior and its implications for management in health care systems. Prerequisites: Completion of at least three of the following HSA 3103, HSA 3180, PHC 4510 or URS 3438. If HSC major, completion of HSA 3103 and HSA 3180.

HSA 4113 Issues and Trends in Health Care Delivery (3). Issues and trends in policy questions involving health care organizations, financing, quality controls, and delivery of services are addressed. This is a Capstone course. Prerequisites: Completion of at least three of the following HSA 3103, HSA 3180, PHC 4510 or URS 3438. If HSC major, completion of HSA 3103 and HSA 3180.

HSA 4141 Program Planning and Evaluation (3). Basic concepts of planning and evaluation as the fundamental tools of program design and development are examined. Prerequisites: Completion of at least three of the following HSA 3103, HSA 3180, PHC 4510 or URS 3438. If HSC major, completion of HSA 3103 and HSA 3180.

HSA 4150 People, Power and Politics in Health Affairs (3). Community power structures are analyzed as to their function in politics and decisions governing health care. The health professional's role is studied with respect to the political process in health care. Prerequisites: Completion of at least three of the following HSA 3103, HSA 3180, PHC 4510 or URS 3438. If HSC major, completion of HSA 3103.

HSA 4170 Health Care Financial Management (3). Financial management methods and procedures for health care institutions. Prerequisites: Completion of at least three of the following HSA 3103, HSA 3180, PHC 4510 or URS 3438. If HSC major, completion of HSA 3103 and HSA 3180.

HSA 4183 Applied Management in Health Care Organization (3). Management theory and principles are examined in their application to the administrative process. Case studies are emphasized to illustrate operational conditions found in health care settings. Strategic Management is emphasized. Prerequisites: HSA 3180, HSA 4110, or permission of the instructor.

HSA 4184 Human Resources Management and Supervision (3). The role of health care supervisors is examined with respect to interviewing, performance appraisal, disciplining, counseling, job orientation, in-service education and responsibilities. Prerequisites: Completion of at least three of the following HSA 3103, HSA 3180, PHC 4510 or URS 3438. If HSC major, completion of HSA 3103 and HSA 3180.

HSA 4192 Health Management Systems Engineering (3). Introduction to health systems analysis and application of industrial engineering techniques including work systems, job analysis, space utilization, inventory control, and traffic patterns are studied. Prerequisites: Completion of at least three of the following HSA 3103, HSA 3180, PHC 4510 or URS 3438. If HIM major, completion of HIM 3626 or permission of the instructor. If HSC major, completion of HSA 3103 and HSA 3180. Computer Skills Required.

HSA 4193 Automated Management and Information Systems (3). The analysis, design, and installation of management information systems in health care organizations is studied. Evaluation of computer systems

from several perspectives are examined. Prerequisites: HSA 4192 or permission of the instructor.

HSA 4421 Legal Aspects and Legislation in Health Care (3). Corporate structure and legal liabilities of health care institutions and professionals is studied from a local, state, and federal regulatory position. Prerequisites: Completion of at least three of the following HSA 3103, HSA 3180, PHC 4510 or URS 3438. If HIM major, completion of HIM 3006 or permission of the instructor. If HSC major, completion of HSA 3103.

HSA 4430 Health Economics (3). This course is designed as an introduction to health economics. Health economics is concerned with issues related to scarcity of resources in health care markets. Prerequisites: Completion of at least three of the following HSA 3103, HSA 3180, PHC 4510 or URS 3438. If HSC major, completion of HSA 3103 and HSA 3180.

HSA 4850 Administrative Internship (2-6). The student who has completed all required upper division course work is provided an opportunity to observe and engage in administrative practice in a health care setting. Prerequisite: Completion of all curriculum required course work and have an educational plan approved by the Faculty Preceptor the semester prior to registering.

HSA 4905 Undergraduate Independent Study (1-3). Students take part in in-depth research or an action-oriented project under the supervision of their faculty advisor. Preparation and approval of the content must be made one semester in advance. Prerequisite: Permission of faculty advisor.

HUN 2000 Foundations of Nutrition Science (3). An integrated functional survey of nutrition science as it relates to human physiology, physiological chemistry, food chemistry and biotechnology. Intended for the non-science major. Corequisite: Foundations of Nutrition Science Laboratory.

HUN 2000L Foundations of Nutrition Science Laboratory (1). To apply the scientific method to nutrition science as it relates to human physiology, physiological chemistry, food chemistry and biotechnology. Corequisite: Foundations of Nutrition Science.

HUN 2201 Principles of Nutrition (3). Nutrients and their interrelationships, requirements of individuals, and food sources. Investigates current controversies, fads/fallacies, and health related issues. Recommended for non-majors. (F,S,SS)

HUN 2201L Principles of Nutrition Labortory (1). Using the scientific method, study of nutrients/foods required for Recommended Dietary Allowances. Assessment of personal nutrition indicators using anthropometric, and other indices. Corequisite: HUN 2201.

HUN 3122 Applied Nutrition (3). Study of the scientific principles of nutrition and impact of culture on nutrition and health. Recommended for Junior-Senior non-majors. (F,S,SS)

HUN 3191 World Nutrition (3). Exploration of food production, distribution, and consumption patterns of selected nations. Analysis of variables affecting nutritional intake and change, and hunger. (F,S,SS)

HUN 3294 Women's Nutrition Issues (3). Focus is on women, health and nutrition. Covers nutrition throughout women's life cycle, principles of absorption, digestion, metabolism, food composition, local to international issues. New labeling laws, current nutrition research. (F)

HUN 3414 Nutrition for the Athlete (3). Exploration of nutrition in the enhancement of health and athletic performance. Nutrition claims targeted to the exercising population will be evaluated. Prerequisite: HUN 2201.

HUN 4240 Nutrition and Biochemistry (3). Study of the relationship of nutrition and biochemistry with emphasis on digestion, absorption, metabolism of nutrients, and determination of norms. Prerequistes: Organic Chemistry concurrent or prerequiste and Junior standing. (F,SS)

HUN 4241 Advanced Nutrition (3). Roles of nutrients in metabolic processes. Effects of excesses and deficiencies. Prerequisites: Organic Chemistry, Physiology, Biochemistry, and HUN 2201 or equivalent. (F)

HUN 4403 Life Cycle Nutrition (3). Nutrient requirements, dietary adequacy, food habits, special nutritional concerns during pregnancy, infancy, childhood, adolescence, and adulthood including aging. Prerequisites: HUN 2201 or HUN 3122. (F,S)

HUN 4404 Nutrition, Physical Activity and Special Populations (3). Study of nutrition and physical activity, nutrition and special populations, especially pediatrics and older adults. Prerequisites: HUN 4403, DIE 4246.

IHS 3204 Exploring Leadership: Yourself, Your Organization and Your Community (3). This course is an interactive exploration of personal leadership development through current theories and models of leadership from three perspectives including individual, group, and society.

IHS 4111 Values, Ethics, and Conflict Resolution in Health and Urban Affairs (3). Explores individual and organizational values, related values, related theories, ethical systems and their influence on behavior of individuals in government agencies, law enforcement and health care professions.

PHC 2402 Sexual Issues in Public Health (3). Public Health policy and its relation to understanding sexual health and the variety of factors that affect individual's sexual lives.

PHC 4009 Principles of Applied Epidemiology (3). Methods and techniques used by epidemiologists investigating the distribution and causes of diseases are studied. A holistic approach to principles of disease surveillance and control is studied. Prerequisite or Corequisite: HSA 3103.

PHC 4302 Introduction to Environmental Public Health (3). This course covers a description and analysis of environmental/occupational factors that affect the health of a community.

PHC 4308 Biological Basis of Environmental Public Health (3). This course will introduce students to cell biology and basic anatomy, physiology, pathophysiology of major organ systems.

PHC 4318 Introduction to Biological Basis of Environmental Public Health (3). This course will

introduce students to cutting-edge research in the field of environmental public health with a focus towards better treatment and prevention of human diseases.

PHC 4509 Introduction to Health Promotion in Public Health (3). This course is an introduction to the role of health promotion in public health; it will address successes and failures in marketing public health program; it will discuss practical ways to prevent premature causes of death and policies.

PHC 4510 Statistical Applications (3). The intent of this course is to familiarize students with the basic approaches to social research as applied in healthcare settings. Emphasis will be placed on techniques for organizing and presenting data for policy and management decision-making.

URS 3438 Communication Skills for Policy and Management (3). Designed to enable students to develop oral and written skills required to communicate effectively in organizational and public policy settings.

URS 4004 Introductory Fiscal Analysis for Health and Public Service (3). This course is designed to provide the basics of pricing mechanisms and financial planning techniques applicable to health, nonprofit, and public organizations and enterprises.

URS 4153 Applied Research Methods for Policy and Management (3). Research design, sampling, critical evaluation, basic research ethics, experiments and quasi experiments, reliability and validity surveys, design-implementation, qualitative and quantitative methods, secondary analysis evaluation and presentation.

Robert Stempel School of Public Health

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Associate Dean, Academic Affairs **H. Virginia McCoy**
Assistant Dean, Student and Alumni Affairs **Saul Sztam**

Chairs:
Dietetics and Nutrition **Fatma Huffman**
Environmental and Occupational Health **Deodutta Roy**
Health Promotion and Disease Prevention **H. Virginia McCoy**
Health Policy and Management **Gloria Deckard**
Epidemiology and Biostatistics **Nasar Ahmed**

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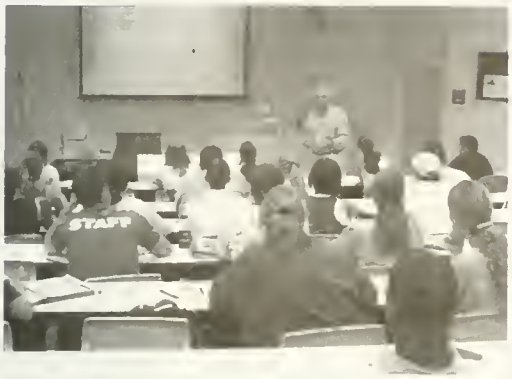
FLORIDA INTERNATIONAL UNIVERSITY



SCHOOL OF

hospitality and tourism management

School of Hospitality and Tourism Management

Joseph J. West, *Dean and Professor*
Lee C. Dickson, *Associate Dean and Associate Professor*
Joan S. Remington, *Associate Dean for Academics, Director, Career Development; Director, Institute for Hospitality and Tourism Education and Research Instructor*
Rocco M. Angelo, *Associate Dean and Professor*
Elio C. Bellucci, *Professor*
Cheryl M. Carter, *Instructor*
Patrick J. Cassidy, *Instructor*
M. Nancy Del Risco, *Lecturer*
Marcel R. Escoffier, *Associate Professor*
William M. Hansen, *Instructor*
Gerald W. Lattin, *Professor Emeritus*
Steven V. Moll, *Associate Professor*
Elisa Moncarz, *Professor*
Michael J. Moran, *Instructor*
William J. Morgan, Jr., *Professor Emeritus*
Diann R. Newman, *Instructor and Academic Advisor*
William G. O'Brien, *Associate Professor*
Nestor Portocarrero, *Professor*
Roger Probst, *Instructor*
Yvette Reisinger, *Associate Professor*
J. Kevin Robson, *Associate Professor*
Donald G. Rosellini, *Lecturer*
David M. Talty, *Instructor*
Mary L. Tanke, *Associate Professor*
Jinlin Zhao, *Associate Professor and Director, Graduate Programs*

The School of Hospitality and Tourism Management offers Bachelor's and Master's degrees in Hospitality Management and Travel and Tourism Management and Certificate Programs that combine practical experience with classroom theory to assist the student to gain the understanding, skills, and techniques needed to qualify for job opportunities, and to achieve his or her career goals in the hospitality/tourism industry.

With the cooperation of industry executives, the School has created an internship program which literally utilizes the hotels, resorts, restaurants, clubs, airlines, travel agencies, and cruise lines as practice labs for students. The advanced phase of the internship program provides each student a structured training experience normally not available to a student until he or she has entered the industry after graduation.

An Industry Advisory Board - which includes outstanding executives in the lodging, foodservice, and tourism industries - works regularly with the faculty, staff, and students of the School to formulate and update a curriculum that is current, flexible, and related to the needs of the hospitality and tourism industries.

The School was designated a Program of Distinction by the former Florida Board of Education.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics, and to respond to the mandates of the FIU Board of Trustees. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Locations

The School is located on 200 tropical acres in a resort-like setting at the scenic Biscayne Bay Campus at Biscayne Boulevard and Northeast 151 Street, North Miami, Florida.

The FIU undergraduate degree program in Hospitality Management is also available at St. Petersburg College, Florida (via distance learning) in conjunction with the University Partnership center.

The FIU undergraduate degree program in Travel and Tourism Management, also is available evenings. Selected courses in Hospitality and Travel Industry Management are presented at the FIU University Park Campus.

Admission

Applicants to the School must submit an Application for Admission to the University and must follow the regular University admission procedures described in the Admissions section of the catalog. Applicants must be eligible for admission to the University before admission to the School. A minimum TOEFL score of 500 written, 173 computer based is required for international applicants. Admitted international students scoring below 550 on the TOEFL may be required to take an intensive course in conversational English offered by the FIU English Language Institute.

Undergraduate Study

Any student who has completed two years of college (60 semester hours) may apply for admission to the upper division program. Full credit will be granted for both Associate in Arts and Associate in Science degrees. One may enroll on either a full-time or a part-time basis. International students must enroll full-time. Students with less than 60 transfer credits must meet freshman admission criteria. All students must meet the University's Core Curriculum requirements prior to graduation.

It is not necessary to have been previously enrolled in a hotel, restaurant, or tourism program. The curriculum will provide the specialized professional education to equip the student for a career in hospitality and tourism management. Students with training in liberal arts, business, education, or technology, for example, are qualified to enroll in the program.

A maximum of 60 lower division undergraduate semester credits may be transferred from a junior or community college program. More credits may be transferred from a related upper-division program at a four-year institution.

There is a requirement that all students complete at least 1000 hours of practical training work experience in the hospitality or tourism industry, in addition to the Advanced Internship of 300 hours. A minimum of 800 hours of the total 1300 hours must be completed while enrolled at FIU. Work experience documentation is required. All graduating students will be required to attend the "Life After College" Workshop.

Bachelor of Science in Hospitality Management

Degree Program Hours: 120

Lower Division Preparation (60)

To qualify for full admission to the upper division program, FIU undergraduates must have met all the lower division core requirements, including CLAST, have completed 60 semester hours, have a minimum 2.0 GPA and must be otherwise acceptable into the program. Transfer students should complete a minimum of 60 semester hours with a 2.0 GPA. All University Core Curriculum and CLAST requirements must be completed prior to graduation from the University.

Hospitality Core Requirements: 42

FSS 3230C	Introductory Food Production Management	3
FSS 4234C	Advanced Food Production Management	3
HFT 3210	Fundamentals of Management in the Hospitality Industry	3
HFT 3403	Accounting for the Hospitality Industry	3
HFT 3423	Hospitality Information Technology	3
HFT 3453	Operations Control	3
	or	
HFT 3454	Food & Beverage Cost Control	3
HFT 3503	Hospitality Marketing Strategy	3
HFT 3600	Hospitality Industry Law	3
HFT 4295	Leadership in the Hospitality Industry	3
HFT 4221	Human Resources Management for the Hospitality Industry	3
HFT 4323	Hospitality Facilities Management	3
HFT 4464	Financial Analysis in the Hospitality Industry	3
HFT 4474	Management Accounting for the Hospitality Industry	3
HFT 4945	Advanced Internship	3

Electives: 18 hours

Choose from hospitality courses
or
Use to make up University Core Curriculum deficiencies.

Note: Elective credits may be used to make up university core curriculum deficiencies, excluding foreign language. Any foreign language deficiencies will be completed over and above the 60 required hospitality credits.

Courses waived in the hospitality/tourism core may be replaced with another hospitality or tourism elective, or be used to fulfill University Core Curriculum requirements (excluding foreign language).

Industry Experience Requirement: 1300 hours

A total of 1300 documented hours of hospitality/tourism related practical training work experience is required. This includes 300 hours in HFT 4945 Advanced Internship. A minimum of 800 hours must be completed while enrolled in the degree program at FIU. The Advanced Internship must be track-related and approved by an advisor. Work experience documentation is required Students with extensive industry management experience may apply for a waiver of the 1000 hour work experience and Advanced Internship.

Bachelor of Science in Travel and Tourism Management

Degree Program Hours: 120

Lower Division Preparation (60)

To qualify for full admission to the upper division program, FIU undergraduates must have met all the lower division core requirements, including CLAST, have completed 60 semester hours, have a minimum 2.0 GPA and must be otherwise acceptable into the program. Transfer students should complete a minimum of 60 semester hours with a 2.0 GPA. All University Core Curriculum and CLAST requirements must be completed prior to graduation from the University.

Travel & Tourism Core Requirements: 45

HFT 3718	Travel & Tourism Systems	3
HFT 3764	Travel Information Technology	3
HFT 3210	Fundamentals of Management in the Hospitality Industry	3
HFT 3403	Accounting for the Hospitality Industry	3
HFT 3509	Tourism Destination Marketing	3
HFT 3701	Sustainable Tourism Practices	3
HFT 3727	Travel Industry Law	3
HFT 3735	Destinations and Cultures	3
HFT 3874	Role of Food in Tourism	3
HFT 4737	Managing Tourism Services	3
HFT 4221	Human Resources Management for Hospitality Industry	3
HFT 4465	Financial Analysis for Tourism	3
HFT 4502	Role of Market Research in Visitor Industry	3
HFT 3733	Tour Production and Distribution	3
HFT 4945	Advanced Internship	3

Electives: 15

Choose from hospitality/tourism courses or use to make up University Core Curriculum deficiencies.

Note: Elective credits may be used to make up University Core Curriculum deficiencies, excluding foreign language. Any language deficiencies will be completed over and above the 60 required travel and tourism credits. Courses waived in the Hospitality/Tourism core may be replaced with another hospitality or tourism elective or be used to fulfill University Core Curriculum requirements (excluding foreign langauge).

Industry Experience Requirement: 1300 hours

A total of 1300 documented hours of hospitality related practical training work experience is required. This includes 300 hours in HFT 4945 Advanced Internship. A minimum of 800 hours of travel/tourism related work experience must be completed while enrolled in the degree program at FIU. The Advanced Internship for Travel and Tourism majors must be travel or tourism related and approved by an advisor. Exceptions must be approved by the Dean. Work experience documentation required. Students with extensive industry management experience may apply for a waiver of the 1000 hour work experience and Advanced Internship.

Minor in Hotel/Lodging Management (12)

Required Courses (12)

HFT 3000	Introduction to Hospitality Industry	3
HFT 3503	Hospitality Marketing Strategies	3
HFT 3313	Hospitality Property Management	3
HFT 4293	Hotel/Foodservice Oper	3

Minor in Restaurant/Foodservice Management (12)

Required Courses (12)

HFT 3000	Introduction to Hospitality Industry	3
HFT 3454	Food & Beverage Control	3
HFT 3263	Restaurant Management	3
HFT 3861	Beverage Management	3

Minor in Travel and Tourism Management (12)

Required Courses (12)

HFT 3700	Introduction to Tourism	3
HFT 3713	International Tourism	3
HFT 3735	Destinations and Cultures	3
HFT 3770	Cruiseline Operations and Management	3

Minor in Hospitality Studies (12)

Students select 12 credits in hospitality management and create their own minor according to their particular interests. This minor available to non-hospitality majors.

Minor in International Hospitality Studies (12)

Students select 12 credits in hospitality management and create their own minor according to their particular interests. This minor available to non-hospitality majors only in our International Program Centers.

Minor in Beverage Management (12)

Choose any four of the following courses:

HFT 3873	History of Wine	3
HFT 3861	Beverage Management	3
HFT 3868	Wine and Culture	3
HFT 3862L	Wines of France and Italy	3
HFT 3865	Wines of the New World	3
HFT 3866	Wine Technology, Merchandising, and Marketing	3
HFT 4867	The Business of Wine	3
HFT 3613	Beverage Management Law	3

Certificate Programs

The School has Certificate Programs in Hotel/Lodging Management, Restaurant/Foodservice Management, and Travel and Tourism Management. Each program consists of 12 courses (36 credit hours) and has a core requirement and electives to meet the specific needs of each candidate. The professional certificate programs are open to all students with a high school education and experience in the industry. The international student candidate must submit a minimum score of 500 on the TOEFL exam and a Declaration and Certification of Finances document. One semester (15 credits) certificates in Hospitality Administration and Travel and Tourism Administration are also available.

Restaurant/Foodservice Management Certificate (36)

Note: Curriculum may be adjusted to meet the needs of students with extensive related industry experience.

Core Requirements: (27 credits)

FSS 3230C	Introductory Commercial Food Production	3
FSS 4234C	Advanced Food Production Management[1]	3
HFT 3210	Fundamentals of Management in the Hospitality Industry	3
HFT 3263	Restaurant Management	3
HFT 3403	Accounting for the Hospitality Industry	3
HFT 3454	Food and Beverage Control[1]	3
HFT 3503	Hospitality Marketing Strategy	3
HFT 3600	Hospitality Industry Law	3
HFT 3861	Beverage Management	3

Electives (9)

(Any HFT or FSS course is acceptable for electives)

FSS 3242	International Cuisine	3
FSS 3285	Art in Culinary Arts	3
FSS 3247	International Baking, Confectionary and Desserts	3
FSS 4106	Purchasing and Menu Planning	3
FSS 4241	Classical Cuisine	3
HFT 3277	Club Operations Management	3
HFT 3866	Wine Technology	3
HFT 4221	Human Resources Management	3
HFT 4224	Human Relations	3
HFT 4344C	QSR Management	3
HFT 4493C	Foodservice Computer Systems[1]	3
HFT 4545	Leadership Training for Team Building	3
HFT 4802	Catering Management[1]	3
HFT 4809	Management for Food Service Industry Segments	3
HFT 4853	Foodservice Trends and Challenges	3
HFT 4867	Advanced Wine Technology[1]	3
HFT 6863	World of Wine and Food	3

[1]Prerequisite required.

Hotel/Lodging Management Certificate (36)

Note: Curriculum may be adjusted to meet the needs of students with extensive related industry experience.

Core Requirements: (27)

FSS 3230C	Introductory Commercial Food Production	3
HFT 3313	Hospitality Property Management	3
HFT 3403	Accounting for the Hospitality Industry	3
HFT 3453	Operations Control[1]	3
HFT 3503	Hospitality Marketing Strategy	3
HFT 4293	Hotel/Foodservice Operations Management	3
HFT 4323	Hospitality Facilities Management[1]	3
HFT 4413	Lodging Systems and Procedures[1]	3
HFT 4464	Financial Analysis in the Hospitality Industry[1]	3

Electives (9)

(Any HFT or FSS course is acceptable for electives)

HFT 3210	Fundamentals of Mgmt	3
HFT 3423	Hospitality Information Technology	3
HFT 3600	Hospitality Industry Law	3
HFT 3753	Convention & Trade Show Management	3

HFT 3861	Beverage Management	3
HFT 4221	Human Resources for Hosp Industry	3
HFT 4224	Human Relations in Hosp Industry	3
HFT 4274	Timeshare Mgmt[1]	3
HFT 4470	Resort Development[1]	3
HFT 4504	Hospitality and Tourism on the Internet[1]	3
HFT 4545	Leadership Training for Team Building	3
HFT 4785	Casino Oper Mgt	3
HFT 4802	Catering Management[1]	3

[1]Prerequisite required.

Travel and Tourism Management Certificate (36)

Note: Curriculum may be adjusted to meet the needs of students with extensive related industry experience.

Core Requirements: (27)

HFT 3764	Travel Info Technology	3
HFT 3210	Fundamentals of Mgmt	3
HFT 3509	Tourism Destination Marketing	3
HFT 3701	Sustainable Tourism Practices	3
HFT 3713	Int'l Travel & Tourism	3
HFT 3718	Travel and Tourism Systems	3
HFT 3770	Cruise Line Mgmt	3
	OR	
HFT 4762	Airline Management	3
HFT 4737	Managing Tourism Systems	3
HFT 3733	Tour Production and Distribution[1]	3

Electives (9)

HFT 3403	Accounting for the Hospitality Industry	3
HFT 3509	Tourism Destination Mktg	3
HFT 3727	Travel Industry Law	3
HFT 3741	Planning Meetings & Conventions	3
HFT 3753	Convention & Trade Show Mgmt	3
HFT 3866	Wine Technology	3
HFT 4221	Human Resources	3
HFT 4224	Human Relations	3
HFT 4274	Timeshare Mgmt[1]	3
HFT 4470	Resort Development[1]	3
HFT 4545	Leadership Training for Team Bldg	3
HFT 4802C	Catering Management[1]	3

(Evening program available.) [1]Prerequisite required

Hospitality Administration Certificate (15)

Core Requirements: (9)

HFT 3210	Fundamentals of Mgmt in the Hospitality Industry	3
HFT 3503	Hospitality Marketing Strategies	3
HFT 4221	Human Resources Mgmt for the Hospitality Industry	3

Hospitality Electives: (6)(Choose any FOS, FSS, or HFT courses)

Travel and Tourism Administration Certificate (15)

Core Requirements: (9)

HFT 3718	Travel and Tourism Systems	3
HFT 3735	Destinations and Cultures	3
HFT 3764	Travel Information Technology	3

Electives: (6)

HFT 3403	Accounting for the Hospitality Industry	3
HFT 3509	Tourism Destination Mkt	3
HFT 3701	Sustainable Tourism Practices[1]	3
HFT 3727	Travel Law[1]	3
HFT 3741	Planning Meetings	3
HFT 3770	Cruise Line Operations and Management	3
HFT 4221	Human Resources Management for Hospitality Industry[1]	3
HFT 4224	Human Relations Management for Hospitality Industry[1]	3
HFT 4708	Coastal and Marine Tourism[1]	3
HFT 4762	Airline Management[1]	3

[1]Prerequisite Required

Hospitality Studies Certificate (15)

This certificate is designed to provide students maximum flexibility in choosing courses that reflect their needs and interests.

Students select 15 credits in hospitality and tourism management courses to create their own certificate according to their particular interests.

Non-Degree Seeking Students

A number of persons currently employed in the hospitality field may not have the educational requirements to meet degree admission standards, but may be interested in enrolling in certain specific courses to improve their skills and to enhance their chances for promotion. Individuals employed in the field may register as a Non-Degree Seeking Student for a maximum of 15 semester hours.

Event and Meeting Planning Certificate (30)

Core Requirements: (18)

HFT 3764	Travel Information Technology	3
HFT 3741	Planning Meetings and Conventions	3
HFT 4754	Exposition and Events Management	3
HFT 4508	Meetings and Show Markets	3
HFT 4802C	Catering Management	3

Electives (12)

FSS 3230C	Introductory Food Production Management	3
FSS 4234C	Advanced Food Production Management	3
FSS 4336	Culinary Event Management	3
HFT 3210	Fundamentals of Management	3
HFT 3403	Accounting for the Hospitality Industry	3
HFT 3701	Sustainable Tourism Practices	3
HFT 3753	Convention and Trade Show Management	3
HFT 3900/HFT 3905	Independent Studies	3
HFT 4737	Managing Tourism Services	3
HFT 4221	Human Resources	3
HFT 4224	Human Relations	3
HFT 4240	Managing Service Organization	3
HFT 4545	Leadership Training for Team Building	3
HFT 3727	Travel Industry Law	3
HFT 4805	Recreational and Non-commercial Foodservice	3

Choose four courses (12) credits from the above selection

Joint Certificate in Tourism Marketing Communications (18 credits)

The Joint Undergraduate Certificate in Tourism Marketing Communication is an 18-hour program offered jointly by the School of Journalism and Mass Communication and the School of Hospitality and Tourism Management. The objective of this certificate program is to prepare professionals for a communications career specifically in

the tourism industry. It is also appropriate to provide tourism professionals who have gained communications responsibilities with a broad overview of the basic concepts and tasks of mass communications. Hospitality and Tourism will waive the prerequisites for students in the certificate program, with the exception of HFT 3866.

Required Courses

PUR 3000	Principles of Public Relations	3
ADV 3000	Principles of Advertising	3
MMC 4936	Special Topics**	3

**Special topics will be offered for non-SJMC students

Elective Courses

Students may choose any three of the following

HFT 3718	Travel and Tourism Systems	3
HFT 3713	International Travel and Tourism	3
HFT 3509	Tourism Destination Marketing	3
HFT 3741	Planning Meetings and Conventions	3
HFT 3770	Cruise Line Operations and Management	3
HFT 3874	Role of Food Service in Tourism	3
HFT 4762	Airline Management	3
HFT 3754	Exposition and Events Management	3
HFT 4802C	Catering Management	3
HFT 3866	Wine Technology, Merchandising and Marketing (Prerequisite: Minimum age 21)	3

Course Descriptions

Definition of Prefixes

FOS - Food Science; FSS - Foodservice Systems; HFT - Hotel, Food, Tourism;

FOS 3207 Foodservice Sanitation (1). Principles and practices involved in safe handling of food products including HACCP procedures. Offers the opportunity for Food Safety Certification.

FOS 4206 Sanitation in Foodservice Operations (3). The causes and prevention of foodborne illness are stressed. Emphasis is placed on the current problems confronting the industry, with recent food developments as they relate to sanitation. The Hazard Analysis Critical Control Point system (HACCP) is included.

FSS 1005 Introduction to the Culinary Arts (3). Principles and skills required in preparing breads, desserts, salads and entrees including theory of food production, functions and ingredients, purchasing, equipment used and sanitation will be covered.

FSS 3230C Introductory Commercial Food Production (3). Study of basic and intermediate commercial food production management skills required in menu design. This knowledge will be applied in the production of appetizers, salads, main course items, and desserts.

FSS 3232C Intermediate Quantity Food Production Techniques (3). An advanced commercial food production course which provides the student with the opportunity to achieve competence and to develop techniques in soups, salads, sauces, and the entrees of meat, poultry, and seafood. Prerequisites: FSS 3230C or equivalent.

FSS 3233C Institutional Foodservice Production (3). Theory and application of commercial and institutional foodservice in an industrial environment, including large scale purchasing procedure, training in large production equipment, on-the-job training. Prerequisites: FOS 3021 or FOS 4041.

FSS 3242C International Cuisine (3). An opportunity for food aficionados to explore modern interpretations of international classic cuisine. Includes lecture, demonstration and preparation of favorite international dishes from restaurant menus around the world. Open to non-majors.

FSS 3247 International Baking, Confectionary and Desserts (3). Provides a professional understanding and foundation of management for food production in a pastry department or industrial baking facility within the foodservice industry. Prerequisite: FSS 3230C.

FSS 3285 Art in the Culinary Arts (3). Analysis of art used in the hospitality industry and in the creation of artistic culinary preparations made from edible material used to enhance receptions and buffets. Prerequisite: FSS 3230C.

FSS 3311C School Foodservice Production (3). Managerial approach to commercial food production in educational service emphasizing supervisory aspects of planning, production and controls.

FSS 4106 Purchasing and Menu Planning (3). Basic information on sources, grades and standards, criteria for selection, purchasing, and storage for the major foods, including the development of specifications. Consideration of the menu pattern with particular emphasis on costing, pricing, and the work load placed on the production staff. Item analysis and merchandising features are emphasized. Prerequisite: FSS 3230C.

FSS 4234C Advanced Food Production Management (3). A course in advanced food production and service techniques to provide the student with realistic production, service and managerial experience. Students will be rotated through production and service stations and, as managers, will be required to plan menus, supervise preparation and service, handle customer relations, and keep accurate accounting records on the profit and loss phases of the operation. Staffing, merchandising, and cost control procedures are integral parts of the course. Prerequisite: FSS 3230C.

FSS 4241C Classical Cuisine (3). Provides an opportunity for students to expand their knowledge of food preparation into the area of world-respected traditional dishes. The course includes lecture, demonstration, and actual preparation of classical dishes. Open to non-majors.

FSS 4336 Culinary Event Management (3). A unique course allowing the opportunity for students with advanced culinary skills to learn the art and science of managing culinary events. Prerequisites: FSS 3230C and FSS 4234C or A.O.S. in Culinary Arts.

FSS 4339C Advanced Culinary Event Management (3). An advanced course designed for students that have previous background in culinary events. This course will provide leadership opportunity in managing the Bubble Q event as part of the South Beach Wine & Food Festival. Prerequisite: FSS 4336.

FSS 4434 Food Facility Layout and Design (3). Defines and explains concepts, principles, and procedures in evaluating and/or developing varied commercial

foodservice facilities that will increase profit by reducing investment and operating cost and/or by increasing capacity. Actual installations are intensively reviewed. Current trends in foodservice methodology and technology are studied in detail, and foodservice equipment manufacturing processes and distribution economics are observed and evaluated. Prerequisite: HFT 4323.

HFT 1001 Careers in Hospitality Management (3). Orientation to the hospitality industry, its history, magnitude, challenges and career opportunities.

HFT 1750 Introduction to Conference & Convention Planning (3). Introductory course covering career opportunities in the conference/convention business; procedure involved in planning and marketing events. Students will plan and execute a special event.

HFT 1772 Introduction to the Cruiseline Industry (3). Introductory course focusing on the cruiseline industry, its relationship to other segments of the hospitality industry. Why cruising is the fastest growing travel industry and career opportunities offered.

HFT 3000 Introduction to Hospitality and Tourism Management (3). A survey course providing an overview of the industry, its history, problems, and general operating procedures. Operating executives from the fields of hotel, restaurant, foodservice, travel, and tourism will be featured periodically. For Freshman, Sophomores, or Juniors Only.

HFT 3013 Protocol for Hospitality and Tourism (1). Protocol for Hospitality and Tourism focuses on the "operating rules" of 21st Century Business Etiquette and Dining Protocols - attributes which are necessary components for success in the business world.

HFT 3210 Fundamentals of Management in the Hospitality Industry (3). A basic course in general management concepts and practices to acquaint the student with theories and principles of organization, the tools of managerial decision-making, and the management process, with particular reference to the hospitality industry. Case studies are used.

HFT 3263 Restaurant Management (3). Analysis of principal operating problems facing managers in the restaurant industry. Various control systems necessary for profitability and quality are examined.

HFT 3277 Club Operations Management (3). Lecture, discussion, case studies, and field trips specifically designed to expose the future club manager, golf professional, and turf manager to club operations. Introduction to the uniform system of accounts for clubs, annual club studies for operating results, control systems, taxation, budgeting, and management reports.

HFT 3313 Hospitality Property Management (3). The problems of cost and operation of pest control, security, parking, general cleaning and upkeep, laundry, fire prevention, pools, tennis courts, and care of guest rooms and public space, with emphasis on equipment, personnel, and modern innovations. The housekeeping and property management function of the hotel.

HFT 3403 Accounting for the Hospitality Industry (3). Introduction to the principles of accounting as they apply to the hospitality industry. Required for students who have not satisfactorily completed introductory accounting courses.

HFT 3423 Hospitality Information Technology (3). Covers current computer applications in the hospitalty industry including information technology specific to hotel and restaurant accounting, finance, marketing, and management. These concepts are stressed through hands-on laboratory assignments with a Hotel Property Management System and a Restaurant POS/back-office as well as Microsoft Office. Mathematical financial functions will include the Present Value Function and the time value of money in the context of the Uniform System of Accounts for the Lodging Industry.

HFT 3424 Accounting and Controls for Foodservice Operations (3). Analysis of accounting and operational problems in specialized foodservice sectors. Procedures, approaches and techniques of management control explored for efficiency using accounting knowledge.

HFT 3440 Applied Computers Technology in Foodservice (1). Introductory computer course including menu graphics; word processing, communications, MS Office, the WWW and computer methods in foodservice.

HFT 3444 Survey of Computer Use by Hospitality Managers (3). An introduction to the novice computer user to basic computer skills and computer use in the hospitality industry.

HFT 3453 Lodging Operations Control (3). Focuses on controlling expenses and revenues of a full-service lodging operation using qualitative and quantitative techniques. Based on using the uniform system of accounts for the lodging industry. Prerequisite: HFT 3403.

HFT 3454 Food and Beverage Control (3). Fundamentals of food and beverage cost controls in the hospitality industry.

HFT 3503 Hospitality Marketing Strategy (3). Examines marketing principles, theories and concepts and the use of management principles and techniques of analysis, planning, implementation and control to maximize marketing effectiveness in hospitality organizations. Stresses marketing of services.

HFT 3505 Hospitality Buyer Behavior (3). An analysis of influences on buyer and the process involved in their purchase of hospitality services and the implications for marketing/strategy design and execution. Prerequisites: HFT 3503 or equivalent.

HFT 3509 Tourism Destination Marketing (3). Comprehensive study of strategies and advanced techniques used in marketing tourism destinations and products. Marketing plan developed.

HFT 3521 Hospitality Sales and Marketing Techniques (1). An experiential course that gives students the opportunity to practice and develop personal-selling skills by doing field sales projects for industry partners (may be repeated for up to 3 credits). Prerequisite: Permission of the instructor.

HFT 3600 Hospitality Industry Law (3). A basic course in hotel, motel, and restaurant law emphasizing risk management and security The student is introduced to the fundamental laws, rules, and regulations applicable to

the hospitality industry. Case study approach is used to develop an awareness and understanding of the legal problems confronting the manager and executive in policy and decision making.

HFT 3613 Beverage Management Law (3). Survey of regulations of alcohol and governance of alcoholic beverage retail businesses in compliance with alcoholic beverage law. Prerequisites: HFT 3210 or permission of the instructor.

HFT 3700 Fundamentals of Tourism (3). An introduction to the broad fields of travel and tourism. Among the topics covered are cultural tourism, eco-tourism, sociology of tourism, tourism components and supply, tourism development, the economic role of tourism demand, and the marketing of tourism.

HFT 3701 Sustainable Tourism Practices (3). In-depth study of contemporary issues pertaining to tourism based on the natural environment. Explores management strategies suitable for controlling a growing industry. Prerequisites: HFT 3210 or HFT 3718.

HFT 3713 International Travel and Tourism (3). An introduction to the international scope of travel and tourism. A brief analysis of regional framework and specific regions of the world, the interrelationship between human society and the physical environment. Tourism as a factor in economic development and its cultural and sociological factors are explored. An analysis of the international organization of tourism and the facilitation procedures required for its successful implementations are highlighted.

HFT 3718 Travel and Tourism Systems (3). The course provides a foundation for the concept of travel and tourism as a system. Study of the importance of interrelated activities of the components integral to international and domestic travel and tourism: destination planning and development.

HFT 3727 Travel Industry Law (3). Legal strategies, tactics and principles for the multi-faceted travel industry. Covers applicable statutes, regulations and international agreements. Prerequisite: HFT 3210.

HFT 3733 Tour Production and Distribution (3). Comprehensive study of group and wholesale tour operations. Includes design, supplier negotiations and pricing aspects of tours. Examines marketing, sales and promotional techniques of the tour product. Prerequisites: HFT 3403, HFT 3718, HFT 3503 or HFT 3509.

HFT 3735 Destination and Cultures (3). A geographical analysis of worldwide tourist destination regions and their major attractions. The course emphasizes how geographic and cultural factors are critical to the attractiveness of a tourist destination.

HFT 3741 Planning Meetings and Conventions (3). Introduction to the meeting and convention industry, concentrating on specific and practical research, planning, supervision and control guidelines used by today's Professional Meeting Planner.

HFT 3753 Convention and Trade Show Management (3). A course concentrating on organizing, arranging and operating conventions, trade shows, and expositions. Emphasis is placed on the modes and methods of sales used in booking conventions and trade shows, as well as the division of administrative responsibility in their operation.

HFT 3754 Exposition and Events Management (3). Comprehensive study of strategies for planning, developing and marketing public/trade show events.

HFT 3760 Tourist Transport Systems (3). Explores relationships between tourists and modern transport providers, the impact of societal and environmental issues, the intense service nature and resulting challenges of operations and management.

HFT 3764 Travel Information Technology (3). This course provides a foundation for understanding and mastery of travel industry specific technologies, examines new technologies used in the travel industry which encourage unsurpassed quality, service and efficiency in today's national and global travel industry.

HFT 3770 Cruise Line Operations & Management (3). Overview of cruise industry: its history and evolutions, operating and marketing procedures, career opportunities, ship profiles, itineraries, and ports of call. Guest speakers and optional field trip included.

HFT 3793 Sociology of Leisure (3). An introduction to the fundamental psychological and sociological concepts and theories as they relate to the motivation behind travel and tourism.

HFT 3813 Marketing for Foodservice Operations (1). Examines marketing principles, theories and concepts and the use of management principles and techniques. Stresses marketing for food services.

HFT 3861 Beverage Management (3). An introduction to the identification, use and service of wines, spirits, and other alcoholic beverages, with an in-depth analysis of the various elements of beverage operations including purchasing, control, merchandising, and bar management. Prerequisite: Minimum age 21.

HFT 3862L Wines of France and Italy (3). A survey of the wines of the New World focusing on French and Italian wine groups, the most common methods of wine production; French and Italian wine classification systems. Prerequisite: Minimum age 21.

HFT 3864 Introduction to Brewing Science (3). A hands-on overview of the scientific principles and operation of craft breweries, and microbrewery technology. Relevant chemical, biological, and physical processes will be examined. Prerequisite: Minimum age 21.

HFT 3864L Introduction to Brewing Science Laboratory (1). A hands-on overview of the scientific principles and operation of craft breweries, commercial breweries, and microbrewery technology. Relevant chemical, biological, and physical processes will be examined. Prerequisite: Minimum age 21.

HFT 3865 Wines of the New World (3). Classroom discussion accompanied by class tastings of selected wines. An emphasis on identifying by taste the grape varietal of different wines from each region.

HFT 3866 Wine Technology, Merchandising, and Marketing (3). A course in oenology and the fundamentals of wine technology (viticulture and vinification methods). The major types of wine and the factors influencing their

quality; principles of sensory evaluation; wine merchandising and marketing. Prerequisite: Minimum age 21.

HFT 3868 Wine and Culture (3). A survey of the legendary old world and new world wine regions with a special emphasis on the cultural background that enabled these vineyards to develop and flourish.

HFT 3873 The History of Wine (3). This course will provide a history of wine from prehistoric times to the late Victorian era, it covers all aspects of wine from its early use by the Gods of mythology to ancient and modern practices: food, weather, customs, living conditions, cost of production, what they ate, etc. Prerequisite: Must be 21 or older.

HFT 3874 Role of Food Service in Tourism (3). A theroretical approach to the multicultural dimensions of food service and cultures of origin, a practical display and discussion of food production and presentation according to the different types of existing services. Prerequisites: HFT 3210 or HFT 3718.

HFT 3892 Caribbean Cuisine (3). An exploration of Caribbean cuisine in terms of history, ethnicity and lifestyle through lectures, food demonstrations and tastings.

HFT 3900-3905 Independent Studies (VAR). With permission from the Associate Dean, students may engage in independent research projects and other approved phases of independent study. Prerequisites: 3.0 GPA and permission of the instructor.

HFT 3941 Internship in Hospitality Management (3). Practical training and experience in all the major phases of hospitality operations and visitor industry. Reports are required. Prerequisite: Permission of the instructor.

HFT 4221 Human Resources Management for Hospitality Industry (3). An in-depth study of human resources management in hospitality industry designed to improve and advance student's skills through understanding of both hourly and management human resource policies, practices and procedures. Prerequsites: HFT 3210, HFT 3600 or HFT 3727.

HFT 4222 Human Resources Development and Training for Hospitality Industry Managers (3). A course designed to provide specific applications of proven training systems and methods for managers in the hospitality industry. The case study method will be used. Prerequisite: HFT 3210. (F,S)

HFT 4224 Human Relations in the Hospitality Industry (3). Designed to improve management skills for effective relationships with hospitality associates and guests. Course includes diversity appreciation, community service and team building. Prerequisite: HFT 3210.

HFT 4240 Managing Service Organizations (3). In-depth study of management issues relating to service and quality assurance in the service industry. Examines service linkages to marketing operations and human resources. Prerequisites: HFT 3503 or HFT 3509, and HFT 3210, Senior Status only.

HFT 4274 Timeshare Management (3). A comprehensive study of time-share and vacation ownership, including legislation, legal structures, project budgeting, financing, marketing, sales and property management. Prerequisite: HFT 3210.

HFT 4284 Global Hospitality Business Environment (3). Advanced management seminar examining the role of social, cultural, political, legal, ethical, economic and technological factors in how management is practiced in hospitality firms worldwide. Prerequisite: HFT 3210.

HFT 4292C Entrepreneurship in the Hospitality and Tourism Industry (3). Provides students with an overview of all major areas that must be considered when analyzing, designing and planning a new business venture or an acquisition.

HFT 4293 Hotel Foodservice Operations Seminar (3). Senior course reviewing current foodservice operations, practices, procedures and problems throughout all areas and facets of the hotel industry. Prerequisites: HFT 3000 or HFT 3210.

HFT 4295 Leadership in the Hospitality Industry (3). To introduce the student to the fundamentals of leadership and basic leadership skills for organizational success. Prerequisite: Graduating Seniors.

HFT 4296 Senior Seminar in Hospitality Management (3). Student groups identify and research a major problem of a hospitality enterprise. Discussions will focus on problems and solutions. Final report required. Seniors only.

HFT 4323 Hospitality Facilities Management (3). A comprehensive survey of engineering, maintenance and efficiency control in hotels, restaurants, and institutions. Prerequisites: HFT 3403, HFT 3453.

HFT 4343 Hotel and Restaurant Planning and Design (3). Considers analysis, evaluation, and scheduling of the economic, technical, aesthetic, and merchandising factors involved in the systematic planning, programming and design cycle for hotels and restaurants. Actual hotel and restaurant projects will serve as the basis for discussion and student project work. Prerequisite: HFT 4323.

HFT 4344C QSR Management (3). A study of management in a wide range of Quick Service Food Restaurants, including site criteria, design and layout, operations, marketing techniques and human relations. Prerequisite: HFT 3263

HFT 4365 Environmental/Quality Management in the Hospitality Industry (3). A multi-dimensional course reviewing global sustainability and environmental movements. This defined impact on the hospitality industry. Integrates courses and opportunities related to sustainability. Prerequisite: HFT 3210.

HFT 4413 Lodging Systems and Procedures (3). Detailed study of methods used in serving and tracking guest history and yield management in the hospitality industry. Demonstrates state-of-the-art technology and concepts. Prerequisites: HFT 3423 and HFT 3453.

HFT 4445 Hotel Computer Systems (3). A seminar on computer systems within the hotel industry. An intensive study of a computerized property management system. All computer applications are examined from reservations to the back office through a series of assignments and projects. Prerequisite: HFT 3423.

HFT 4464 Financial Analysis in the Hospitality Industry (3). Facilitates understanding and use of financial analysis in the hospitality industry. Topics include decision-making based on ratio analaysis, leverage, financing sources and other financial issues. Prerequisite: HFT 3403.

HFT 4465 Financial Analysis for Tourism (3). Facilities understanding and use of financial analysis. Topics include decision-making based ratio-analysis, leverage, budgeting, financing sources and other financial issues. Prerequisite: HFT 3403.

HFT 4470 Resort Development (3). Analysis of management systems and methods for development of full-service resorts. Comparison of specialized requirements for different types of resorts based on location, climate, activities, and life-style. Considers management responsibilities for feasibility analysis, project development, construction supervision, pre-opening requirements and operations. Prerequisite: HFT 3403.

HFT 4474 Management Accounting for the Hospitality Industry (3). Advanced study of the decision-making process involved in the hospitality industry. Emphasis on budgeting, pricing decisions, cost-volume-profit analysis and capital budgeting. Prerequisite: HFT 3403.

HFT 4479 Foodservice Systems Development (3). Course presenting the systems and procedures to develop a foodservice operation from concept to opening. Prerequisites: HFT 3403, HFT 3263, and HFT 3503.

HFT 4493C Foodservice Computer Systems (3). Study of computer systems in the restaurant and foodservice industry. The student is required to implement a simulated restaurant including personnel files, daily management, menu explosion and analysis, and inventory tracking. A research project will be assigned. Prerequisite: HFT 3210.

HFT 4502 Role of Market Research in Visitor Industry (3). Fundamental research methods for tourism industry: data collection, analysis, write-up, and presentation. Emphasis placed on research implication relevant to management and problem solving. Prerequisite: HFT 3509.

HFT 4503L Hospitality Marketing Management Laboratory (2). An experiential course that allows students within a team to apply ideas, theories and techniques of management to real-world business challenges (may be repeated for up to 6 credits). Prerequisite: HFT 3521.

HFT 4504 Hospitality and Tourism on the Internet (3). This course provides working knowledge of the structure of the internet and web site hosting. Current principles of on-line marketing are examined in detail. Prerequisites: HFT 3503 or permission of the instructor.

HFT 4508 Meetings and Show Markets (3). An in-depth analysis of the characteristics and buying behavior of meetings and show markets and the marketing strategies that can effectively attract and serve them. Prerequisites: HFT 3503 or HFT 4509.

HFT 4512C Hospitality Promotion Strategy (3). This course deals with the practical aspects of designing and implementing a hospitality advertising, public relations, and promotional program. Planning, budgeting, media, and campaign creation will be studied. Prerequisites: HFT 3503 or HFT 3509.

HFT 4514 Hospitality Marketing Strategy Case Studies (3). A case-method course in strategic marketing analysis and decision making for the hospitality services industry. Students engage in intensive class discussion and write reports on hospitality cases. Prerequisites: HFT 3503 or equivalent.

HFT 4520 Personal Sales Tactics for the Hospitality Industry (3). An investigation of personal selling approaches and procedures used in hospitality sales environments combined with practical application role plays and skill rehearsals. Prerequisites: HFT 3503 or HFT 4509.

HFT 4524 Sales Management for the Hospitality Industry (3). Explores innovative management techniques used in hospitality sales for effective sales development and revenue generation. Practical application, simulations, research and field study used. Prerequisites: HFT 3503 or HFT 4509.

HFT 4545 Leadership Training for Team Building (3). Students will learn leadership skills to facilitate team building activities in order to improve group communication, trust, problem-solving, and productivity. Prerequisite: HFT 3210.

HFT 4604 Employment Law for Hospitality Managment (3). Study of employment law including minimum wage, overtime, exempt employees, sexual harassment, discrimination under Civil Rights Act Title VII, ADA, Imigration Act and Family & Medical Leave Act. Prerequisites: HFT 3600 or HFT 3727.

HFT 4654 Financial and Legal Aspects of Real Estate Development in the Hospitality Industry (3). A study of the legal implications and financing alternatives for development of new properties and conversions. Prerequisites: HFT 3600 and HFT 4464.

HFT 4708 Coastal and Marine Tourism (3). Exploration of positive and negative impacts, management techniques and practices of worldwide coastal and marine environments. Prerequisites: HFT 3718 or permission of the instructor.

HFT 4711 Cultural/Heritage Tourism (3). Course addresses the significance of cultural resources (such as historical sites, art, and customs), program development, and visitor management to educate the traveller and preserve cultural diversity. Prerequisites: HFT 3718 or permission of the instructor.

HFT 4714 Implementation and Management of Tourism Projects (3). Practical development, implementation, and management of tourism projects and programs with emphasis on international and developing nation situations. Prerequisites: HFT 3718 or HFT 3713.

HFT 4737 Managing Tourism Services (3). This course will introduce the student to management issues relating to service and quality assurance in travel and tourism systems. It includes examination of the concept of service and quality as a basic function of sustainability and analysis of the importance of the linkages of service and quality within sustainable travel and tourism products. Prerequisites: HFT 3718, HFT 3210, HFT 4221 or HFT

4224, HFT 3701, HFT 3727, and must take course in last semester / 12 hours left / graduating student.

HFT 4757 Advanced Events Management (3). This course focuses on advanced planning and managing of special events, from ideas and concepts through the actual event implementation and follow-up. Students will have the opportunity to focus on detailed elements of event management. Prerequisites: HFT 4754 or permission of the instructor.

HFT 4762 Airline Management (3). An in-depth study of the airline industry as a component of the hospitality tourism industry. Includes operation of various departments, costs of operations, regulation issues and career opportunities. Prerequisites: HFT 3718 or permission of the instructor.

HFT 4763 Airline Computer Reservation Systems (3). An intensive study of the airline reservation system including computer software, travel documents, tickets, price itineraries as well as world wide travel information retrieval. Prerequisites: HFT 3423 or equivalent.

HFT 4785 Casino Operations Management (3). Topics include: historical, legal, social and operational aspects of the casino industry; odds assessment, game types, and cash management. Paramutual wagering, casinos, and sports books examined. Prerequisite: HFT 3210.

HFT 4802C Catering Management (3). A study of the techniques, logistics, and responsibilities involved in the management of on-premise and off-premise, catering companies. Prerequisites: FSS 3230C or permission of the instructor.

HFT 4805 Recreational and Non-commercial Foodservice (3). Management of various non-commercial and contract foodservice operations including business and industry, hospital/medical center, school/college, and recreational. Prerequisite: HFT 3210.

HFT 4809 Management of Foodservice Industry Segments (3). An in-depth study of all segments of the foodservice industry including all major areas of foodservice operations as they relate to various industry segments. Prerequisite: HFT 3263.

HFT 4853 Foodservice Trends and Challenges (3). Advanced level course covers management issues relevant to current trends and challenges facing the foodservice industry. Topics covered will vary as appropriate for current situations. Prerequisite: FSS 3230.

HFT 4867 The Business of Wine (3). Overview of the wine business including: importers, whole-salers, growing grapes, making wine, retailing in supermarkets, restaurants, and liquor stores, analytical tastings, matching wine and food. Prerequisites: HFT 3866; minimum age 21.

HFT 4869 Celebrity Wine Course (3). Learn from the leading experts in the wine industry. The course includes sensory evaluation and appreciation of wines, marketing, wine and food pairings, and employment opportunities. Prerequisite: Must be 21 years or older.

HFT 4936 Hotel Management Seminar (3). A senior course examining the power of partnerships and interrelationships between hotel/resorts and other key segments of the visitor industry (airport, cruiseport, convention center, attractions, sport teams, and stadiums/arenas, etc.) Considers current lodging and visitor industry problems and practices, developing policies and procedures, and implementing them. Prerequisite: HFT 3210.

HFT 4945 Advanced Internship in Hospitality/Tourism Management (0-3). Structured hospitality practical training work experience involving training program and job rotations not previously performed. Ten week/300 hours minimum. Report and management project required. Prerequisites: Documented completion of 1,000 hospitality related work hours of which at least 500 hours must be completed while enrolled at FIU. Permission of the instructor.

HFT 4955 Field Study Abroad: Hospitality and Tourism (3-6). The course is designed to acquaint students with hospitality and tourism development in many parts of the world. Students will observe the development through trips to major cities in a country or area.

School of Hospitality and Tourism Management

Dean	**Joseph J. West**
Associate Dean	**Lee C. Dickson**
Associate Dean for Academics	**Joan S. Remington**
Associate Dean	**Rocco M. Angelo**

Faculty

Angelo, Rocco M., M.B.A. *(University of Miami), Professor, Management and Associate Dean*

Bellucci, Elio C., J.D. *(Boston College), Professor, Law*

Carter, Cheryl M., M.S. *(Florida International University), Instructor, Tourism*

Cassidy, Patrick J., B.S. *(Florida International University), Instructor, Wine Technology*

Del Risco, M. Nancy, Ph.D. *(University of Paris), Lecturer, Tourism Studies*

Dickson, Lee C., M.B.A. *(Babson College), Associate Professor, Management and Marketing and Associate Dean*

Escoffier, Marcel R., M.S. *(Florida International University), Associate Professor, Management*

Hansen, William M., M.S. *(Florida International University), Instructor, Catering Management*

Lattin, Gerald W., Ph.D. *(Cornell University), Professor Emeritus*

Moll, Steven V., M.S. *(Florida International University), Associate Professor, Management*

Moncarz, Elisa S., B.B.A., C.P.A. *(Baruch College), Professor, Accounting and Finance*

Moran, Michael J., M.S. *(Florida International University), Instructor, Food Management*

Morgan, William J., Jr., Ph.D. *(Cornell University), Professor Emeritus*

Newman, Diann R., Ed.D. *(Nova Southeastern University), Instructor, Human Relations and Academic Advisor*

O'Brien, William G., M.S. *(Florida International University), Associate Professor, Information Systems Management*

Portocarrero, Nestor, B.B.A. C.P.A. *(University of Miami), Professor, Accounting and Finance*

Probst, Roger D., B.S. *(University of New Haven), Instructor, Food Management*

Reisinger, Yvette, Ph.D. *(Victoria University), Associate Professor, Tourism and Marketing*

Remington, Joan S., J.D. *(Willamette University), Instructor, Tourism and Marketing, Associate Dean for Academics; Director, Career Development; Director, The Institute for Hospitality and Tourism Education and Research*

Robson, J. Kevin, M.S. *(Florida International University), Associate Professor, Food Management*

Rosellini, Donald G., J.D. *(Northwestern University), Lecturer, Management*

Talty, David M., B.S. *(Florida State University), Instructor, Management*

Tanke, Mary L., Ph.D. *(Purdue University), Associate Professor, Management*

West, Joseph J., Ph.D. *(Virginia Polytechnic Institute and State University), Professor, Management and Dean*

Zhao, Jinlin, Ph.D. *(Virginia Polytechnic Institute and State University), Associate Professor, Management; Director, Graduate Programs*

FLORIDA INTERNATIONAL UNIVERSITY

SCHOOL OF

journalism and mass communication

School of Journalism and Mass Communication

Lillian Lodge Kopenhaver, *Professor and Dean*
Frederick R. Blevens, *Professor and Associate Dean*
Catherine B. Ahles, *Associate Professor and Department Chair for Advertising and Public Relations*
Margo Berman, *Associate Professor*
Yolanda Cal, *Assistant Professor*
Jane Daugherty, *Associate Professor*
Humberto Delgado, *Instructor*
Mario Diament, *Associate Professor*
Lynn Farber, *Associate Professor*
Gregg Fields, *Associate Professor*
Rosanna Fiske, *Associate Professor*
Juliet Gill, *Associate Professor*
Hugh Gladwin, *Director, Institute for Public Opinion Research*
Ann Goraczko, *Instructor and Coordinator of Institute for Public Opinion Research*
Kate MacMillin, *Instructor*
Lilliam Martinez-Bustos, *Assistant Professor*
Brian Parker, *Assistant Professor*
Teresa Ponte, *Associate Professor*
Jody Rafkind, *Visiting Assistant Professor*
Neil Reisner, *Associate Professor*
Allan Richards, *Assistant Professor and Department Chair for Journalism and Broadcasting*
Patricia B. Rose, *Professor Emeritus*
Michael Sheerin, *Assistant Professor*
Carlos Suris, *Instructor and Coordinator of Student Resource Center*
Lorna Veraldi, *Associate Professor*
Mercedes Vigon, *Assocaite Professor*
Maria Elena Villar, *Assistant Professor*
John Virtue, *Director, International Media Center*

Bachelor of Science in Communication

Degree Program Hours: 120-124

The School of Journalism and Mass Communication is fully accredited by the Accrediting Council on Education in Journalism and Mass Communications. Only 25 percent of all Schools of Journalism and Mass Communication in the United States are fully accredited.

The aim of the undergraduate communication program at the University is to prepare students who

1. are broadly educated, demonstrated by a grasp of the liberal arts and an appreciation of the value of knowledge and learning, including exploration in some depth of a specific field of knowledge outside communication;

2. can think clearly and objectively about the complexities of the modern world, formulate concepts and effectively communicate this information to targeted audiences;

3. are proficient in the basic skills necessary to meet professional requirements at the entry level in one of the tracks offered by the school. This shall include the ability to write English to professional standards and to master the mechanics of grammar, spelling, and punctuation; and

4. understand the social, ethical, economic, philosophical, and political aspects of the communication professions in a global society.

The School offers majors in advertising, broadcast journalism, print journalism, public relations, television production and televsion management. Approximately 25 percent of a student's course work is within the school. The purpose is to provide professional career entry skills as well as a broader understanding of communication processes and techniques and their impact on society.

Emphasis is placed on a broad range of knowledge. In keeping with the standards required of nationally-accredited mass communication programs for graduation, all students must take a minimum of 80 semester hours outside the field of journalism and mass communication (actual number will vary by track); a minimum of 65 of those hours must be in the liberal arts.

Additionally, students will select an area of concentration outside the field of communication to pursue in depth. Each advisor will provide recommendations for students with particular career goals.

Typing ability is required of all students.

Lower Division Requirements

Due to the school's accreditation, lower division students are encouraged to enroll in liberal arts courses beyond their general or core curriculum requirements. A list of suggested courses can be obtained in the Office of Student Services. To be fully admitted into the upper division program, FIU undergraduates and transfer students must complete 60 credits, satisfy all four subsections of the CLAST (College Level Academic Skills Test) requirements, and have a GPA of **3.0** or higher. A waiver of the **3.0** GPA requirement may be granted to a very limited number of applicants upon faculty committee recommendation. Students must score at least a 65 on the School's Language skills test to apply for this waiver.

In addition to verifying all requirements for admission, the school evaluates all previous course work to ascertain that the admitted student has met the University's general education or core curriculum requirements as well as those of the School and/or track. Furthermore, we strongly recommend that students complete any deficiencies within the first two semesters upon entering upper division status.

Writing Proficiency

All students in each track are expected to demonstrate proficiency in writing. Students are required to enroll in Writing Strategies for Reaching a Mass Audience (MMC 3104C) and receive a 'C' or higher. Admission to MMC 3104C requires a passing on a language skills test as established by the school. MMC 3104C is a prerequisite for ADV 4101, ADV 4103, ADV 4300, JOU 3343L, JOU 3121, JOU 3188, MMC 4609, MMC 4930, MMC 4410, PUR 4100, PUR 4101 and PUR 4106.

Transfer Credit

Transfer students may receive credit for comparable Florida state communication courses in accordance with Statue 1007.24(7) **or** for a maximum of six semester hours of communication courses previously taken at non-Florida state institutions with a grade of 'B' or higher in each course.

Lower Division Students

Freshmen and sophomores planning to enter the school are encouraged to write or visit the school to discuss

requirements, career opportunities, and their programs of study.

Acceptable Performance

Only grades of 'C' or higher in School courses, the student's area of concentration, and other courses as required by the School shall apply for graduation. A 'C-' is unacceptable. A "P" grade is unacceptable, unless required course is zero credits. In order to take courses, students must have completed all prerequisites for the course with a grade of 'C' or better. Any student found not to have completed the specific prerequisite requirements as stated in the catalog and the course outline will be administratively dropped if the student does not drop the course prior to the end of the drop period. Students who are late or absent on the first day of class may be dropped from high demand courses at the instructor's discretion.

Graduation Policy

To be eligible for graduation, a student must have a minimum **2.75** GPA in all SJMC courses as well as in the outside courses required by the program. The grade point average will be computed seperately to maintain the **2.75** standard in both categories.

Advertising

School Requirements (12 credits)

MMC 3003	Mass Communication Orientation	0
MMC 3104C	Writing Strategies for Reaching a Mass Audience *(Prereq: Language Skills Test Score of 65)*	3
MMC 3602	Mass Media and Society	3
MMC 4200	Mass Communication Law and Ethics	3
VIC 3002	Visual Design for Media	3

Track Requirements (24 credits)

ADV 3008	Principles of Advertising	3
PUR 3000	Principles of Public Relations	3
ADV 3200	Creative Concepts	3
MMC 4609	Integrated Communication Research Strategy	3

Creative Track *(Prereq: Grade of "B" or better in ADV 3200 and Full Admssion Into Upper Division Program)*

ADV 4101	Advanced Print Concepts *(Prereq: ADV 3008, ADV 3200 [with 'B' grade], & MMC 3104C)* **AND**	3
ADV 4103	Radio/TV Concepts *(Prereq: MMC 3104C, ADV 3008, ADV 3200 [with 'B' grade])*	3

OR

Account Management Track *(Prereq: Full Admission Into Upper Division Program)*

ADV 4300	Media Planning *(Prereq: ADV 3008, MMC 3104C)* **AND**	3
MMC 4936	Special Topics (Advertising and Public Relations	3
MMC 4410	Integrated Communication Campaigns *(Prereq: All tracks and school requirements except seminar and/or internship)*	3
MMC 4930	Integrated Communication Seminar *(Prereq: MMC 3104C, ADV 3008, PUR 3000, ADV 3200 or PUR 4100 and Instructor's permission).*	3

One Departmental Elective From The Following: (3 credits)

JOU 3003	Introduction to Journalism	3
MMC 4936	Special Topics (Advertising)	3
MMC 4945	Communication Internship *(Prereq: Faculty Advisor's Approval, Senior Standing)*	3
RTV 3007	Introduction to Television	3

MMC3104C must be completed (with a grade of "C" or higher) within the first two semesters of the upper division program.

Liberal Arts Requirements (9 credits)

Students must select one upper division (3000-4000 level) course from each of the following subject areas:

Anthropology/Sociology		3
Psychology		3
COM 3110**	Business & Professional Communication	3

**If 1000/2000 speech course already taken, may take art/art history, political science, or international relations.

Area of Concentration (15 credits)

In consultation with an advisor, students must elect a coherent series of five upper-division courses (15 semester hours) in a non-communication area related to their career emphasis.

Internship

Internships are available for advertising majors who have not yet gained experience in the field. Students who have a 3.0 GPA in School course work and meet the curricular requirements outlined in the internship packet may elect an internship in consultation with their advisors. The internship requires a minimum of 300 hours of work for 3 academic credits.

Journalism

School Requirements (9 credits)

MMC 3003	Mass Communication Orientation	0
MMC 3104C	Writing Strategies for Reaching a Mass Audience *(Prereq: Language Skills Test Score of 65)*	3
MMC 3602	Mass Media and Society	3
MMC 4200	Mass Communication Law and Ethics	3

Track Requirements (28 or 29 credits)

JOU 3003	Introduction to Journalism	3
VIC 3002	Visual Design for Media	3
JOU 3343L	Print News Workshop *(Prereq: MMC 3104C, JOU 3003)*	3
JOU 3121	Database and Public Records Reporting *(Prereq: MMC 3104C, JOU 3003)*	3
JOU 3188	Reporting in a Multi-Ethnic Community *(Prereq: MMC 3104C, JOU 3003)*	1

JOU 3117	Print News Reporting *(Prereq: JOU 3343L and Full Admission into Upper Division Program)*	3
RTV 3301	Broadcast News Reporting *(Prereq: JOU 3343L and Full Admission into Upper Division Program)*	3
RTV 3201***	Videography Basics	1
JOU 4946	Journalism Internship *(Prereq: JOU 3343L and consent of internship advisor)*	0

PRINT

(Prereq: Full Admission into Upper Division Program)

JOU 3300**	Feature Writing *(Prereq: JOU 3343L, JOU 3117 & RTV 3301)*	3
JOU 4341C	On-Line News *(JOU 3117 and RTV 3301)*	3

OR

BROADCAST

(Prereq: Full Admission into Upper Division Program)

RTV 4320	Electronic News Gathering *(Prereq: RTV 3201. Coreq or Prereq: RTV 3301, JOU 3117 and Full admission into upper division program)*	3
RTV 4324**	News and Public Affairs *(Prereq: RTV 4320)*	3

***For broadcast students only. This means the student needs 29 credits of required track courses.

Liberal Arts Requirements (9 credits)

Students must select one upper division (3000-4000 level) course from each of the following subject areas: political science, economics, international relations.

Area of Concentration (15 credits)

Students must select a coherent series of five upper division courses (15 credits semester hours) in one of the following non-communication areas: science, environmental, health, business, Spanish language. Other areas of concentration must be approved by the Chair.

Public Relations

School Requirements (12 credits)

MMC 3003	Mass Communication Orientation	0
MMC 3104C	Writing Strategies for Reaching a Mass Audience *(Prereq: Language Skills Test Score of 65)*	3
MMC 3602	Mass Media and Society	3
MMC 4200	Mass Communication Law and Ethics	3
VIC 3002	Visual Design for Media	3

Track Requirements (24 credits)

PUR 3000	Principles of Public Relations	3
ADV 3008	Principles of Advertising	3
ADV 3200	Creative Concepts	3
MMC 4609	Integrated Communication Research Strategy *(Prereq: MMC 3104C, PUR 3000)*	3
PUR 4100	Writing for Public Relations *(Prereq: PUR 3000, MMC 3104C & Full Admission Into Upper Division Program)*	3
PUR 4101	Publications Editing and Design *(Prereq: PUR 4100)*	3
PUR 4106	Advanced Public Relations Writing *(Prereq: PUR 4100)*	3
MMC 4410	Integrated Communication Campaigns *(Prereq: All tracks and school requirements except seminar and/or internship)*	3

One Departmental Electives from the Following: (3 credits)

JOU 3003	Introduction to Journalism	3
MMC 4936	Special Topics (Public Relations)	3
MMC 4945	Communication Internship *(Prereq: Faculty Advisor's Approval)*	3
MMC 4930	Integrated Communication Seminar *(Prereq: MMC 3104C, ADV 3008, PUR 3000, ADV 3200 or PUR 4100 and Instructor's permission).*	3
RTV 3007	Introduction to Television	3

Liberal Arts Requirements (9 credits)

Students must select one course from each of the following subject areas:

Economics or Sociology		3
Psychology		3
COM 3110**	Business & Professional Communication	3

**If 1000/2000 speech course already taken, may take art/art history, political science, or international relations.

Area of Concentration (15 credits)

In consultation with an advisor, the student must take 15 upper division semester hours in one area of emphasis outside the School. These courses should relate to the student's career expectations. Several traditional areas of specialization are as follows:

Governmental public communication (public administration, international relations, criminal justice, or political science)

Corporate public relations (marketing or management)

Non-profit public relations (social sciences or marketing)

Public relations for travel and tourism (hospitality management)

These groupings do not preclude other specialized areas of interest, including modern languages and the certificate programs available in the College of Arts and Sciences.

Internship

The internship is important for public relations majors who have not yet gained experience in the field. Students who have a 3.0 GPA in School course work and meet the curricular requirements outlined in the internship packet may select an internship in consultation with their advisors. The internship requires a minimum of 300 hours of work for three academic credits.

Television

School Requirements (9 credits)

Students in the Television Track may choose Production or Management. In addition to the individual track requirements, students must take the following school requirements:

MMC 3003	Mass Communication Orientation	0
MMC 3104C	Writing Strategies for Reaching a Mass Audience *(Prereq: Language Skills Test Score of 65)*	3
MMC 3602	Mass Media and Society	3
MMC 4200	Mass Communication Law and Ethics	3

Track Requirements (21-27 credits)

RTV 3007	Introduction to Television	3
RTV 3200	Video Studio Production	3
RTV 4101	Advanced Writing for Television *(Prereq: MMC 3104C)*	3
MMC 4262	New Technologies *(Prereq: RTV 3007)*	3
VIC 3002	Visual Design for Media	3

AND

MANAGEMENT

MMC 3250	Media Management *(Prereq: Full admission into upper divison program)*	3
RTV 4930C	Television Programming Seminar *(Prereq: RTV 3007, MMC 3250 and Full admission into upper division program)* and	3
Elective (any 3-credit course in SJMC)		3

OR

PRODUCTION

MMC 4541	E-Cinema & Television Aesthetics	3
RTV 3260	Video Field Production *(Prereq: RTV 3200)*	3
RTV 3207	Video Directing *(Prereq: RTV 3200)*	3
RTV 3263	Video Post Production *(Prereqs: RTV 3207, RTV 3260)*	3
RTV 4202	Videography Advanced *(Prereqs: RTV 3263 and Full admission to upper division program)*	3

Area of Concentration (12 credits)

Students must take at least 12 upper division semester hours in a field outside the school. This field of study will be decided upon with the advisor, with appropriate consideration given to the student's specialized needs.

Liberal Arts Requirements (12 credits)

Students must select a total of 12 semester hours in the following subject areas: art (photography), art history, computer science, English, history, political science, philosophy, sociology or anthropology in order to meet the upper division liberal arts requirements. These credits are in addition to the area of concentration.

Internship or Professional Expansion of Knowledge (PEK)

The internship is important for television majors who have not yet gained experience in the field. Therefore, students who have a 3.0 GPA in school course work and meet the curricular requirements outlined in the internship packet or PEK packets may select the internship or PEK in consultation with their advisor. Either requires a minimum of 300 hours of work for 3 academic credits.

Minor in Advertising (18 credits)

Students are required to take the following three courses:

MMC 3104C	Writing Strategies for Reaching a Mass Audience	3
ADV 3008	Principles of Advertising	3
ADV 3200	Creative Concepts	3

Plus one of the following courses:

MMC 3602	Mass Media and Society	3
MMC 4200	Mass Communication Law and Ethics	3
MMC 4930	Integrated Communication Seminar	3

They must also choose either of the following two groups of courses for a total of 18 semester hours.

Group I:

ADV 4101	Advanced Print Concepts	3
ADV 4103	Radio/TV Concepts	3

Group II:

ADV 4300	Media Planning	3
MMC 4609	Integrated Communication Research Strategy	3

Minor in Journalism (19 credits)

MMC 3104C	Writing Strategies for Reaching a Mass Audience	3
JOU 3343L	Print New Workshop	3
JOU 3003	Introduction to Journalism	3
JOU 3320	Reporting in a Multi-Ethnic Community	1
JOU 3117	Print News Reporting	3
RTV 3301	Broadcast News Reporting	3
One three-credit elective course at the 3000 level or higher in the school.		3

Minor in Public Relations (18 credits)

Required Courses

MMC 3104C	Writing Strategies for Reaching a Mass Audience	3
PUR 3000	Principles of Public Relations	3
PUR 4100	Writing for Public Relations	3
PUR 4106	Advanced PR Writing	3
PUR 4101	Publications Editing and Design	3

Plus one of the following courses:

MMC 3602	Mass Media and Society	3
MMC 4200	Mass Communication Law and Ethics	3
MMC 4930	Integrated Communication Seminar	3

Minor in Mass Communication (15 credits)

MMC 3602	Mass Media and Society	3
MMC 4200	Mass Communication Law and Ethics	3

Students may select two courses from those listed below:

PUR 3000	Principles of Public Relations	3
	or	
ADV 3008	Principles of Advertising	3
	or	
RTV 3007	Introduction to Television	3
	or	
JOU 3003	Introduction to Journalism	3

One three-credit elective course at the 3000 level or higher in the school. (May include one of the two remaining courses above.)

Minor in Television

Required Courses: (15)

MMC 3602	Mass Media and Society	3
RTV 3007	Introduction to Television	3
MMC 4200	Comm. Law & Ethics	3
MMC 3104	Writing Strategies	3
	and	

RTV 4101	Advanced Writing for Television *(Prerequisite: MMC 3104)*	3
	or	
MMC 3250	Media Management	3
	or	
MMC 4262	New Technologies *(Prerequisite: RTV 3007)*	3

Certificate Programs

Mass Communication (18 credits)

MMC 3602	Mass Media and Society	3
MMC 4200	Mass Communication Law and Ethics	3

Select two from the following courses:

PUR 3000	3	ADV 3008	3
RTV 3007	3	JOU 3003	3

Two additional courses from the SMJC (6 credits)

Media Management (15 credits)

This 15 credit certificate will provide basic information about the Television Management field and provide the tools necessary to prepare students for entry level management positions.

Required Courses

RTV 3007	Introduction to Television	3
MMC 3250	Media Management	3
MMC 4262	New Technologies	3
MMC 4200	Mass Communication Law and Ethics	3
One additional course from the SMJC		3

Spanish Language Journalism (15 credits)

The objective of this graduate level certificate program in Spanish Language Journalism is to develop skills and techniques that will allow working journalists to be more responsive to the demands of their profession as well as the opportunity to become more familiar with Spanish-language journalism in general. The focus of the program will be on reading, writing, and thinking. All courses will be taught in Spanish. Some courses may be offered off campus.

Interested students should contact the department for additional information and course requirements.

Student Media Advising (15 credits)

This graduate level certificate program is designed primarily for journalism teachers and for student media advisers on all levels and for those aspiring to the profession. This program will satisfy the requirements of the certification, re-certification or incentive credits for current public school teachers in the field.

The Certificate in Student Media Advising requires 15 credits to be taken as follows:

Required Courses:

JOU 5806	Student Publications Supervision
MMC 5207	Ethical and Legal Foundations of the Student Press
VIC 5205	Trends in Graphics and Design

Elective Courses

Students must take two of the following:

RTV 5936	Seminar in New Communication Technologies
MMC 6402	Theories of Mass Communication
MMC 6635	Contemporary Issues in Mass Communication
PUR 4101	Publications Editing and Design
JOU 4208	Magazine Editing and Production

or

other courses upon approval of the faculty advisor.

Joint Certificate in Tourism Marketing Communications (18 credits)

The Joint Undergraduate Certificate in Tourism Marketing Communication is an 18-hour program offered jointly by the School of Journalism and Mass Communication and the School of Hospitality and Tourism Management. The objective of this certificate program is to prepare professionals for a communications career specifically in the tourism industry. It is also appropriate to provide tourism professionals who have gained communications responsibilities with a broad overview of the basic concepts and tasks of mass communications. Hospitality and Tourism will waive the prerequisites for students in the certificate program, with the exception of HFT 3866.

Required Courses

PUR 3000	Principles of Public Relations	3
ADV 3008	Principles of Advertising	3
MMC 4936	Special Topics**	3

**Special topics will be offered for non-SJMC students

Elective Courses

Students may choose any three of the following

HFT 3718	Travel and Tourism Systems	3
HFT 3713	International Travel and Tourism	3
HFT 3509	Tourism Destination Marketing	3
HFT 3741	Planning Meetings and Conventions	3
HFT 3770	Cruise Line Operations and Management	3
HFT 4874	Role of Food Service in Tourism	3
HFT 4762	Airline Management	3
HFT 3754	Exposition and Events Management	3
HFT 4802C	Catering Management	3
HFT 3866	Wine Technology, Merchandising and Marketing (Prerequisite: Minimum age 21)	3

Course Descriptions

Definition of Prefixes

ADV-Advertising; JOU-Journalism; MMC- Mass Media Communication; PUR-Public Relations; RTV-Radio-Television; VIC-Visual Communication

ADV 3008 Principles of Advertising (3). Comprehensive survey of basic principles and practices of advertising emphasizing creative/media strategy decision processes and historical, social, economic, and social influences.

ADV 3200 Creative Concepts (3). Familiarization with the creative process and creative problem solving techniques. Emphasis on group work, brainstorming and idea generation. Will formulate strategies using all communication tools.

ADV 4101 Advanced Print Concepts (3). Advanced copywriting and graphic design. Lab exercises focusing on concept, layout, type specification and mechanical preparation of print advertising, including outdoor and direct response. Prerequisites: ADV 3008, ADV 3200, (with a grade of "B" or better), MMC 3104C, and full admission into upper division program. (Supplies fee assessed)

ADV 4103 Radio/TV Concepts (3). Theory and practice of producing advertisements for radio and TV. Includes

production of a radio and/or TV commercial. Prerequisites: MMC 3104C, ADV 3008, ADV 3200 (with a grade of "B"or better) and full admission into upper division program.

ADV 4300 Media Planning (3). Planning, execution, and control of advertising media programs. Emphasis on characteristics of the media, buying and selling processes, and methods and techniques used in campaign planning. Prerequisites: ADV 3008, MMC 3104C, and full admssion into upper division program.

JOU 3003 Introduction to Journalism (3). Study and analytical discussion of the history of journalism in America, including its current practice, through intensive readings of primary historical sources as well as broad, direct exposure to current news sources.

JOU 3117 News Reporting (3). Instruction in learning to ask relevant, appropriate and substantial questions for both print and broadcast on online media. Prerequisites: JOU 3343L and full admission into upper division program. (Supplies fee assessed)

JOU 3121 Database and Public Records Reporting (3). This is a course designed to provide students with the hands on, practical experience of reporting on complex issues involving multiple sources using spreadsheets and databases as an integral part of the reporting process. Students also learn how to gain access to public records, documents and databases. Prerequisite: Successful passage of the Math portion of the CLAST exam.

JOU 3188 Reporting in a Multi-Ethnic Community (1). Learning the political, social and economic backgrounds of ethnic communities in an urban area to improve the reporting of news from those populations and neighborhoods. Corequisite: JOU 3343L.

JOU 3202 Editing and Layout (3). Editing news copy for accuracy and brevity, including AP style. Learning the role of news editor, including headline writing and layout. Prerequisites: MMC 3104C, JOU 3003, JOU 3343L, JOU 3117, JOU 3300.

JOU 3300 Feature Writing (3). Writing the feature story: human interest, trends, personality profiles, sidebars, backgrounders, color. Prerequisites: JOU 3343L, JOU 3117, RTV 3301, and full admission into the upper division program.

JOU 3312 Specialty Journalism (1). Seminars in such topics as investigative, political, business, sports, or minority reporting, and editorials and commentary. Must be taken three times. Prerequisite: JOU 3003.

JOU 3343L Print News Workshop (3). The course teaches the fundamentals of reporting news stories and of writing news stories. Prerequisites: MMC 3104C and JOU 3003. (Supplies fee assessed).

JOU 4101 In-Depth Reporting (3). Advanced instruction and practice in researching, reporting and writing a variety of complex news stories. Prerequisites: JOU 3343L, JOU 3117, RTV 3301. (Supplies fee assessed)

JOU 4208 Magazine Editing and Production (3). Develops skill in writing, editing and design, and a knowledge of planning, typography and graphics. Attention is given to developing formats, selecting copy, photos, graphics, and type.

JOU 4341C On-line News (3). Conceptualizing and producing an on-line publication with major emphasis on editing copy for language, logic and content. Production also includes working on layout, photography, and streaming video and audio. Prerequisites: JOU 3117 and RTV 3301.

JOU 4701 Business, Ethics and Journalism (1-3). Examination and discussion of case studies involving ethical dilemmas caused by pressures from the business side of print and broadcast journalism on working reporters and editors. Real world problems are brought into the classroom discussion to prepare students for the kind of problems they will almost certainly face ih their news careers.

JOU 4946 Journalism Internship (0). On-the-job learning at selected and approved news organization, such as wire services, newspapers, magazines, radio and TV stations. Prerequisites: JOU 3343L and consent of internship advisor. Course may be repeated, but no more than 3 credits will be rewarded. Corequisites: RTV 4323 or RTV 4324.

JOU 5806 Student Media Advising (3). Designed to assist teachers and advisers of journalism at the high school and junior college level, this course emphasizes the technical aspects of producing student newspapers, yearbooks, and magazines, as well as the legal and ethical considerations facing today's adviser. In addition, attention is given to matters pertaining to curriculum and methodology for effective journalistic instruction.

MMC 3003 Mass Communication Orientation (0). A course designed to provide the students with a comprehensive overview of academic policies, procedures and requirements for matriculation and graduation from the School of Journalism and Mass Communication.

MMC 3104C Writing Strategies for Reaching a Mass Audience (3). An advanced writing course that applies creative thinking techniques, especially in the generation of ideas for mass media presentation, as well as the careful and compelling use of language. Prerequisite: Score of 65 on the Language Skills Test.

MMC 3250 Media Management (3). Introduction to media markets with empahsis on television's role in the media mix serving advertisers and end-users. Prerequisite: Full admission to the upper division program.

MMC 3602 Mass Media and Society (3). Investigates the role of mass media and their impact on people's lives. Using all forms of media, examines the interrelationship of major communication professions and society.

MMC 4200 Mass Communication Law and Ethics (3). An in-depth examination of legal and ethical issues confronting professional communicators. Focus on the responsibilities and rights of communicators and the implications for a society entering the 21st century.

MMC 4253 Advanced Media Management (3). A senior level course dealing with case studies of media organizations. Prerequisite: MMC 3250.

MMC 4262 New Technologies of Communication (3). The principal emphasis is upon new technologies in the industry. Prerequisite: RTV 3007.

MMC 4302 Comparative Systems of Mass Communication (3). An examination of various national and international mass communication systems and the elements which determine the type of systems currently operating throughout the world. Prerequisite: RTV 3007.

MMC 4410 Integrated Communications Campaigns (3). Capstone course for advertising and public relations students. Students work in teams to identify a client's communication problem. They then research, strategize, design, and present a communications campaign to a client. Prerequisites: All track and school requirements except seminar and/or internship.

MMC 4500 Media History (3). Development of American media from beginnings in Europe to present day; freedom of the press and its relationships to economic, political, and social trends in society.

MMC 4541 E-Cinema and TV Aesthetics (3). Presentation and study of aesthetic concepts and execution of television and e-cinema. Prerequisite: Permission of the instructor.

MMC 4609 Integrated Communication Research Strategy (3). Nature and application of research utilized in advertising and public relations. Emphasis on gathering and analyzing primary and secondary data to determine situation analysis and communication strategies. Prerequisites: MMC 3104C, ADV 3008 or PUR 3000.

MMC 4905 Independent Study (1-3). Specialized intensive study in an area of special interest to the student. Consent of instructor is required. (Limit of three credits).

MMC 4930 Integrated Communication Seminar (3). A variable topics seminar dealing with one selected area of advertising or public relations, such as multi-cultural communications, sports communication, integrated communications cases, or media relations. Prerequisites: MMC 3104C, ADV 3008, PUR 3000 & PUR 4100 or ADV 3200 and permission of the Instructor.

MMC 4936 Special Topics (3). Intensive study for groups of students of a particular topic or limited number of topics, not otherwise offered in the curriculum.

MMC 4940 Media Practicum (0-3). Structured field-work experience in media environment.

MMC 4945 Communication Internship (3). On-the-job learning in activity at selected and approved organizations. Will include newspapers, magazines, radio and TV stations, agencies, and non-profit organizations. Prerequisite: Permission of the advisor.

MMC 5207 Ethical and Legal Foundations of the Student Press (3). Examines ethical and legal foundations underlying the operation of the student press on American campuses, stressing both rights and responsibilities and how to organize publications to protect both.

MMC 5440 Applied Research Methods in the Mass Media (3). An advanced course in the acquisition and use of secondary data, including media data, as well as the design, execution and utilization of research studies. Students will conduct an original proprietary study. Prerequisites: STA 1013 or equivalent and permission of the instructor.

MMC 5932 Special Topics Seminar (3). A variable topic seminar dealing with issues of interest to the community. Examples are rights of high school journalists, cable TV, the use of mini-computers in creative communication.

PUR 3000 Principles of Public Relations (3). An introduction to the theory, history, practice, and future of public relations. A comprehensive study of the field.

PUR 4100 Writing for Public Relations (3). Introduction to the content, format and style of multiple public relations tools including newsletters, magazines, brochures and digital media. Emphasis on news releases, AP style and media relations. Prerequisites: PUR 3000, MMC 3104C, and full admssion into upper division program. (Supplies fee assessed)

PUR 4101 Publications Editing and Design (3). Understanding the visual theories behind the design, editing and production of PR materials for print, broadcast and multimedia. Special attention given to the aspects of digital pre-production layouts and typography. Prerequisites: PUR 3000 or PUR 4100. (Supplies fee assessed)

PUR 4106 Advanced PR Writing (3). Emphasis on the strategic aspects of public relations writing and preparation of more complex vehicles, such as annual reports, policy speeches, position papers, and complex press releases/press kits. Prerequisites: PUR 4100, MMC 3104C, PUR 3000. (Supplies fee assessed)

PUR 5406 Multi-Cultural Communications (3). Explores the multi-cultural dimensions of communications with diverse audiences both internationally and within the United States. Prerequisite: Permission of the instructor.

PUR 5602 Integrated Communications Proseminar (0). Lectures/discussion by industry professionals and faculty on various components and applications of Intergrated Communications: Advertising & Public Relations (ICAP).

RTV 3007 Introduction to Television (3). Introduction to the history, regulation, industry structure and impact of television.

RTV 3200 Video Studio Production (3). Use of television studio equipment and techniques in production of programs, newcasts, documentaries, commercials, training and video productions. Introduction to basic video directing.

RTV 3201 Videography Basics (1). An introductory course on the principles and practices of videography. Intended for students not majoring in television production.

RTV 3207 Video Directing (3). Studio directing/technical directing and related techniques used in television entertainment shows, commercials, newscasts, documentaries, training and corporate video productions. Students are expected to solve media-related problems during actual productions. Prerequisite: RTV 3200.

RTV 3260 Video Field Production (3). Use of ENG/EFP equipment and techniques in production of programs, news, documentaries, music videos, commercials, training and video productions on location. Emphasis on single camera techniques and editing. Prerequisite: RTV 3200. (Supplies fee assessed)

RTV 3263 Video Post Production (3). Advanced post production techniques using A & B rolls, complex audio mixes and their preparation and execution. Prerequisites: RTV 3260, RTV 3207. (Supplies fee assessed)

RTV 3301 Broadcast News Reporting (3). Instruction and practice in news writing, reporting and interviewing for broadcast media. This course meets in an accelerated manner in the first half of the semester to be followed by Electronic News Gathering RTV 4320 for those students wishing to pursue additional training in broadcast journalism. Prerequisites: News Workshop JOU 3113 and full admission into upper division program.

RTV 3803 Studio Management (3). Students are introduced to basic studio language and procedures and will do research about duties of the producer, budgets and related topics.

RTV 4101 Advanced Writing for TV (3). Includes writing for news reporting as well as anchoring. Documentaries, commercials and public service spots. Public affairs programs. Intros, outs and bridges for a variety of programs. Prerequisite: MMC 3104C.

RTV 4202 Videography Advanced (3). Advanced techniques in single camera production, field lighting and sound recording. Advanced techniques using non-linear editor. Prerequisite: RTV 3263. Corequisites: RTV 4206C and full admission to upper division program.

RTV 4206C Advanced Video Production Workshop (3). Advanced course where students will be expected to use all the knowledge about television production received in the track. Students produce and perhaps direct programs for broadcast/cablecast. Prerequisite: RTV 3263. Corequisites: RTV 4202 and full admission to upper division program. (Supplies fee assessed)

RTV 4320 Electronic News Gathering (3). An introduction to the real world of television news. This course is designed to teach students to plan, write and execute electronic news productions from concept to finished product. This course meeets in an accelerated manner in the second half of the semester following Broadcast News Reporting RTV 3301. Prerequisite: RTV 3201. Corequisites or Prerequisites: RTV 3301, JOU 3117 and full admission into upper division program.

RTV 4323 Documentary Production (3). Advanced laboratory and field work to produce, report, write and edit documentaries for television. Prerequisites: JOU 3117, RTV 3301. (Supplies fee assessed)

RTV 4324 News and Public Affairs (3). Advanced instruction in public affairs reporting for television. Students will report, write, produce and edit hard and feature news stories in standard package and long format. Prerequisites: RTV 4320 and full admission into upper division program. (Supplies fee assessed)

RTV 4800 Station Operation (3). Advanced production course. Students learn production and operation for a television station. Students will be assigned programs to produce for broadcast/cablecast. Prerequisites: RTV 4101, RTV 3263, and RTV 3207.

RTV 4930C Television Programming Seminar (3). Advanced seminar on the business, legal and ethical issues in television programming. Prerequisites: RTV 3007, MMC 3250, and full admission to the upper division program.

RTV 4940L Television Production Internship (3). Course provides television majors an opportunity for supervised professional experience in television production, working at television stations, production studios and other media organizations. Prerequisites: Full admission to upper division. Completion of RTV 3200, RTV 3207, RTV 3260, RTV 3263. Permission of the instructor. 3.0 GPA in SJMC courses.

RTV 4941L Television Management Internship (3). Course provides Television majors an opportunity for supervised professional experience in television management working at broadcast stations and other media organizations. Prerequisites: Full admission to upper division. 3.0 GPA in SJMC courses. Completion of RTV 3007, MMC 3250, and MMC 4200. Permission of the instructor. Prerequisite or Corequisite: RTV 4930.

RTV 5801 Telecommunication Management Structures (3). Intensive study of telecommunication management problems, theory of same, solutions of same through practical application and examination of case studies. Prerequisite: Graduate standing.

RTV 5935 Seminar in International Comparative Broadcasting Systems (3). Introduction to international telecommunication systems with special emphasis on broadcasting. Comparison with other countries. Prerequisites: Graduate standing or permission of the instructor.

RTV 5936 Seminar in New Mass Communication Technologies (3). Discussion of new communication technologies and their influence on the society. Prerequisites: Graduate standing or permission of the instructor.

VIC 3002 Visual Design for Media (3). An exploration of messages – combining words and visual images and their relation to content in print, broadcast, and on-line media.

School of Journalism and Mass Communication

Dean **Lillian Lodge Kopenhaver**
Associate Dean **Frederick R. Blevens**

Faculty

Ahles, Catherine B., M.B.A. *(Michigan State University), Associate Professor and Chair for Advertising and Public Relations, Journalism and Mass Communication*

Berman, Margo, M.M. *(University of Miami), Associate Professor, Journalism and Mass Communication*

Blevens, Frederick R., Ph.D. *(University of Missouri), Professor, Journalism and Mass Communication*

Cal, Yolanda, Ph.D. *(University of Texas at Austin), Assistant Professor, Journalism and Mass Communication*

Daugherty, Jane, M.A. *(University of Miami), Associate Professor, Journalism and Mass Communication*

Delgado, Humberto, M.A. *(Goddard College), Instructor, Journalism and Mass Communication*

Diament, Mario, M.A. *(Antioch College), Associate Professor, Journalism and Mass Communication*

Farber, Lynne, M.A. *(University of Florida), Associate Professor, Journalism and Mass Communication*

Fields, Gregg, M.P.A. *(Harvard University), Associate Professor, Journalism and Mass Communication*

Fiske, Rosanna, M.S. *(Florida International University), Assistant Professor, Journalism and Mass Communication*

Gill, Juliet H., Ph.D. *(University of Miami), Assistant Professor*

Gladwin, Hugh, Ph.D. *(Stanford University), Director, Institute for Public Opinion Research*

Goraczko, Ann, M.S. *(Florida International University), Instructor and Coordinator, Institute for Public Opinion Research*

Kopenhaver, Lillian Lodge, Ed.D. *(Nova Southeastern University), Professor and Dean, Journalism and Mass Communication*

MacMillin, Kate, M.A. *(Simmons College), Instructor, Journalism and Mass Communication*

Martinez-Bustos, Lilliam, M.A. *(University of Southern California), Assistant Professor, Journalism and Mass Communication*

Parker, Brian, Ph.D. *(University of Florida), Assistant Professor, Journalism and Mass Communication*

Ponte, Teresa, J.D. *(Rutgers University School of Law), Associate Professor, Journalism and Mass Communication*

Rafkind, Jody, M.S. *(Florida International University), Visiting Assistant Professor, Journalism and Mass Communication*

Reisner, Neil, M.A. *(Columbia University), Associate Professor, Journalism and Mass Communication*

Richards, Allan, M.A. *(Florida International University), Assistant Professor and Chair for Journalism and Broadcasting, Journalism and Mass Communication*

Rose, Patricia B., M.B.A. *(University of Miami), Professor Emeritus*

Sheerin, Michael, M.S. *(Florida International University), Assistant Professor, Journalism and Mass Communication*

Suris, Carlos, M.L.S. *(University of South Florida), Instructor and Coordinator of Student Resource Center, Journalism and Mass Communication*

Veraldi, Lorna, J.D. *(New York School of Law), Associate Professor, Journalism and Mass Communication*

Vigon, Mercedes, Ph.D. *(University of Miami), Associate Professor, Journalism and Mass Communication*

Villar, Maria Elena, Ph.D. *(University of Miami), Journalism and Mass Communication*

The Honors College

Lesley A. Northup, *Dean*
John S. Kneski, *Associate Dean*
Juan Carlos Espinosa, *Associate Dean*
Sharon Placide, *Assistant Dean*
Valerie Johnsen, *Director of Student Enrollment*
Elizabeth Williams, *Director of College Relations*
Nicole Stratten, *Coordinator of Student Services*
Sachin Gursahani, *Coordinator of Student Services*
Juan Lopez, *Coordinator of Information Technology*

Talented students often are forced to choose between the exciting opportunities and challenges offered by large, research-oriented universities and the close, personal environment offered by small liberal arts colleges. FIU offers the best of both worlds. The Honors College is a small community of dedicated scholars—outstanding students and committed teachers—who work together in an atmosphere usually associated with small private colleges, but with all of the resources of a major state university readily at hand.

The Honors College at FIU offers the very best in undergraduate education and preparation, providing an important foundation for academic, social, and professional development. Students' undergraduate experiences are significantly enhanced by the interdisciplinary focus of the curriculum and the opportunity to work closely with experienced faculty from. An emphasis on civic engagement and community invovement expands students' leadership skills and provides an arena for social interaction. Leadership, mentoring, and internship opportunities made available through the College help prepare students for future graduate and professional study or employment.

Location

The Honors College operates at both University Park and the Biscayne Bay Campus.

Admission Policy

Admission to The Honors College is selective and limited. Students are admitted only at the beginning of each academic year (fall term).

Freshmen: Students with a 3.5 overall high school GPA and commensurate scores on the SAT or ACT are eligible for admission to the College.

Transfer and Continuing FIU Students: Students who have maintained a 3.3 GPA in all college-level work are eligible for admission to the College. To be eligible for admission, students must have at least two full academic years remaining in their undergraduate programs.

Academic Policy

Students are required to maintain a cumulative 3.3 GPA for satisfactory standing in the Honors College.

Graduation Policy

Students are eligible for a transcript notation indicating that they "*Graduated Through The Honors College*" if they:

- have met all other requirements for graduation from the University;
- were continuously enrolled in honors seminars;
- completed at least 24 credits of honors courses (if entered program as a freshman) with a cumulative GPA of at least a 3.3.
- maintained an overall GPA of at least 3.3.

The Honors Curriculum

Students in the College possess dual academic citizenship. They pursue any major available in the University and at the same time complete the honors curriculum. In most cases, participation in the College does not increase the number of credits required for graduation. Each term through the third year, students enroll in one honors seminar that is designed to stimulate thoughtful discussion and creativity and to develop communication skills. Honors seminars are limited to a student/faculty ratio of 20:1 and are taught by some of the best teachers in the University. In the senior year, students may choose from several options including additional seminars, independent research, and foreign study.

Many classes are team-taught; all are interdisciplinary. Years I – II at University Park are structured similarly: all students and faculty at each level meet in a large group session one day a week for lectures, panel discussions, case studies, student presentations, etc.; the other class meeting each week is spent in small group preceptorials. At Biscayne Bay Campus, classes meet as individual seminars. Professors at both campuses meet with the same small group throughout the year. The third year provides a choice of individually taught seminars. The fourth year also provides independent classes with an emphasis on synthesizing the students' experiences during the previous three years and on introducing the students to graduate level research activities.

The curriculum emphasizes the following activities:

- Critical, integrative, and creative thinking;
- Group and independent research;
- Oral presentation;
- Close contact between students and faculty;
- Integration of class work with the broader community.

Year One

IDH 1001, IDH 1002 The Origin of Ideas and the Idea of Origins (6). The course is designed to encourage students to become self-conscious learners, exploring not only the what, but also the how and why of knowing. The course focuses on the nature of truth and reality and our role in the world each of us has constructed.

Year Two

IDH 2003, IDH 2004 Inhabiting Other Lives (6). This seminar exposes students to issues of human commonality and diversity, and invites them to investigate and to understand the interconnectedness of various cultures, times and life experiences.

Year Three

IDH 3005, IDH 3006 Aesthetics, Values, and Authority (6). Building on the investigations of the first two years, the third course examines the aesthetic underpinnings of culture and foundations of what commonly are held to be "western values." Discussions focus not only on these paradigms, but on the authority and power relationships that surround them.

Year Four

Prerequisites

1. admission to The Honors College;
2. 3.0 GPA in prior honors course work;
3. and a cumulative GPA of at least 3.3.

(these requirements may be appealed in writing to the Dean of the Honors College)

Option 1

IDH 4007, IDH 4008 Looking to the Future (6). Discussion of contemporary issues within the framework provided by the first three years of study;

Option 2

Departmental Honors Requirements—Honors course work or honors thesis opportunities offered by individual departments;

Option 3

Independent Study—Individual research projects under the direction of a faculty member from the student's major department;

Option 4

Foreign Study

Students may choose to complete the fourth year of the honors curriculum at one of the College's summer study abroad programs. During the summer programs are offered in Spain, Italy, and Jamaica;

Option 5

Engineering Courses

Engineering Majors may apply specific engineering courses to Honors College graduation requirements. Students must meet with an Honors College Advisor to discuss options.

Honors Place

Honors Place at Panther Hall was named Outstanding Living – Learning Community this year by Florida Student Leader Magazine in 2004. Honors Places provide students the opportunity not only to live together, but to study, socialize, and serve the community together as well. There are three Honors Place options: Honors Place in Lakeview Hall (1st-year students) or in Everglades Hall (sophomores and above) at University Park, and Honors on the Bay at the Biscayne Bay Campus for all students.

Student Research and Artistic Initiatives (SRAI)

The SRAI Program engages students in advanced research and artistic projects during their undergraduate studies. SRAI pairs students and faculty on cutting-edge research usually done only by graduate students, enhancing their knowledge and research skills and their attractiveness to top graduate schools and employers.

Student Information Technology Centers

Student information technology centers are located in the Honors College office on both University Park and Biscayne Bay Campuses. Honors students may use the computers and printers, or study in the lounge areas. Honors also maintains a study room in the University Park library, and a carrel in the libraries on both campuses.

Student Organizations

Gamma Epsilon Phi at University Park, and Tau Sigma Alpha, at Biscayne Bay Campus, move the honors experience beyond the classroom by organizing social and cultural activities and community service projects. The societies provide community and opportunities for leadership development. Other student groups include the Honors Student Ambassadors, MUSE (student-student mentoring), and the Honors Leadership Council.

Mentoring

Mentoring is an important component of the Honors College experience. A close mentoring relationship with a faculty/staff member or community leader can facilitate and enhanced educational or professional experience. Mentoring in the Honors College is multi-faceted. Through SRAI, students develop a close, one-on-one relationship with a research professor. The student-led Mentoring Undergraduate Students for Excellence (MUSE) program pairs entering freshman with an upper-class student mentor. And the Student Enrichment Office carefully works with students to develop leadership skills, community service programs, sites for internships and part-time jobs, and college and employment recruitment opportunities. Corporate and community partners also offer unique mentoring for selected students.

Graduate and Professional School Placement

The Honors College curriculum provides a solid foundation for future graduate and professional study. The Student Enrichment Office works with individual students to help match them to the internship and other enhancement opportunities. That office also facilitates visits from recruiting graduate schools and employers, some of them with unique relationships with the Honors College. The College also offers many by-invitation-only school and employer interviews, high-profile professional events, visits with corporate and community partners, and networking opportunities.

Other Privileges

Because of the special nature of their contribution to the university, Honors College students enjoy other privileges as well, including

- Priority registration
- Library privileges as graduate students
- Opportunities for scholarships
- Participation in Honors Convocation
- Funding to attend conferences
- Internships and mentoring, and
- Special recognition at commencement ceremonies.

Pre-Collegiate Summer Institute

The Summer Institute offers high school students the opportunity to attend college classes during the summer prior to their senior year. Acceptance into the Institute includes a scholarship for 6 credits, which covers tuition, registration fees, and textbooks. The Institute may enable students to graduate from college in under four years. Any credits earned will count toward graduation from FIU and are transferable to other universities. Students also may arrange to apply these credits toward high school graduation.

Students who successfuly complete the Summer Institute are guaranteed priority consideration for admission into The Honors College.

Fellows of The Honors College

Alonso, Irma, T., Ph.D. *(University of York, England), Economics*

Alvarez, Daniel, M.A. *(Harvard University), Religious Studies*

Bailey, Regina, M.FA. *(Pratt Institute), Art*

Bailly, John, M.F.A. *(Yale University), Painting and Printmaking*
Barantovich, Martha, Ed.D. *(Florida International University), Curriculum and Instruction*
Beesting, William, K., Ph.D. *(Florida State University), English*
Carvajal, Manuel, J., Ph.D. *(University of Florida), Economics*
Chatfield, David C., Ph.D. *(University of Minnesota), Chemistry*
Cornely, Helen Z., Ed.D. *(Florida International University), Physical Therapy*
Davies, Gwyn, Ph.D. *(University College, London), History*
DeFrancesco, Charmaine, Ph.D. *(Florida State University), Education*
Draper, Grenville, Ph.D. *(University of the West Indies), Geology*
Elbaum, Leonard, Ed.D. *(Florida International University), Physical Therapy*
Espinosa, Juan Carlos, Ph.D. *(University of Miami), Political Science*
Fain, Stephen M., Ed.D. *(Teachers College, Columbia University), Curriculum and Instruction*
Fingerhut, H. Scott, JD *(Emory Univeristy School of Law), Law*
Fjellman, Stephen, M., Ph.D. *(Stanford University), Anthropology*
Garrote, Ruben, M.A. *(Florida International University), Religious Studies*
Gerstman, Bernard, S., Ph.D. *(Princeton University), Physics*
Graham, Devon, Ph.D. *(University of Miami), Biology*
Grof, Caryl, M.S. *(Florida International University), English*
Herriott, Arthur W., Ph.D. *(University of Florida), Chemistry*
Hoder-Salmon, Marilyn, Ph.D. *(University of New Mexico), English*
Hogner, Robert, H., Ph.D. *(University of Pittsburgh), Marketing and Business Environment*
Jayachandran, Krishnaswamy, Ph.D. *(Kansas State University), Soil Microbiology*
Johnsen, Valerie, M.A. *(Florida International University), Religious Studies*
Kakar, Suman, Ph.D. *(University of Florida), Criminal Justice*
Kass, Scott, M.S. *(Florida State University), Library Science*
Kneski, John, S., M., Archll *(Syracuse University), Architecture*
Laha, Shonali, Ph.D. *(Carnegie Mellon Univeristy), Environmental Engineering*
Machonis, Peter, A., Ph.D. *(Pennsylvania State University), Modern Languages*
Markowitz, Pete, E. C., Ph.D. *(College of William and Mary), Physics*
Maurrasse, Florentin, Ph.D. *(Columbia University), Earth Sciences*
Mills, DeEtta, Ph.D. *(George Mason University), Biology*
Northup, Lesley, A., Ph.D. *(Catholic University), Religious Studies*
Pasztor, Anna, Dr. Rer. Nat. *(Darmstadt University), Computer Science*
Peterson, Joyce, Ph.D. *(University of Wisconsin, Madison), History*
Pfeiffer, Mary Lou, LL.M. *(St. Thomas University), Human Rights Law*
Placide, Sharon, M.A. *(Florida International University), Hispanic Studies*
Pyron, Darden, Ph.D. *(University of Virginia), History*
Riach, James, Ph.D. *(University of Georgia), Anthropology*
Ritzi, William, M.S. *(Florida International University), Art Education*
Schwartz, Bennett L., Ph.D. *(Darthmouth College), Psychology*
Thirunarayanan, M.O., Ph.D. *(Arizona State University), Learning Technologies*
Tsalikis, John, Ph.D. *(University of Mississippi), Marketing*

Military Science

Donald Barnett, *Professor and Chairperson, Military Science*
Jerson A. Ortiz, *Executive Officer, Assistant Professor*
Wally Gallart, *Scholarhsip Enrollment Officer*
William Miller, *Assistant Professor*
Tyler Doughty, *Assistant Professor*

The Army Reserve Officer Training Corps is a college elective that will help students succeed in their desired career, whether civilian or military. Students who complete all ROTC requirements may be commissioned second lieutenants and serve in the Army, Army National Guard or Army Reserve. ROTC electives may also be used by FIU students in pursuit of the school's Certificate of Professional Leadership Studies.

Enrollment

Open to full-time male and female students attending Florida International University. Any students may enroll in MSL 1000 and 2000 level courses in a participation status. Any student enrolling in the MSL 3201/2 and MSL 4301/2 must have the approval of the department.

Instruction and Training

Freshmen and sophomores take Basic Military Science Courses. There is no military obligation associated with the first two years of the program. These courses introduce students to leadership skills. The curriculum involves understanding how to communicate, set goals, how and when to make decisions, engage in creative problem solving, planning and organization. Many of the activities are taken from, or are adaptations of executive and leadership training workshops. The curriculum also focuses on building character, giving you the opportunity to apply, practice and experience leadership principles. Courses consist of outdoor/indoor instruction and practical 'hands-on' training on university intramural fields and South Florida military sites. Qualified juniors, seniors, or graduate students may take the Advanced Military Science Courses upon approval of the department. The Advance Course provides intense training for cadets in experimental leadership positions. Cadets are taught the fundamentals of being a military officer. They will have numerous opportunities to lead small teams in a variety of challenging leadership situations. Senior cadets manage the ROTC Corps of Cadets, mentor junior cadets, plan and conduct training, management, and fund raising activities.

Scholarships

Army ROTC offers a number of scholarships that pay tuition and fees, an allowance for books and stipends to be used as spending money.

Organizations

Ranger Challenge Team - A voluntary organization that is a physically demanding course designed to prepare cadets for area and regional competition against other ROTC units. Cadets train weekly to perfect skills in weapons handling and assembly, marksmanship, orienteering, hand grenade throwing, physical fitness, combat patrolling and combat load roadmarching.

Scabbard and Blade - An honor society for outstanding cadets selected for membership by their peers for academic and military excellence.

Color Guard - An elite organization of cadets skilled in marching and drill and ceremony. Members post the colors at Golden Panther basketball games, baseball games, football games, civic/veteran events and campus functions.

Association of the U.S. Army - A fraternal organization chartered by the national association to perpetuate the ideals of the U.S. Army.

Special Programs

Students unable to participate in ROTC during their freshman and sophomore years may qualify for admission to advanced ROTC (junior and senior years) by attending a four-week course at Ft. Knox, KY. Attendees receive pay, travel costs, lodging and food.

Students who are prior service with a valid DD 214 and honorable discharge are eligible for the advance course program once they have achieved the status of junior or higher.

Students who want to pursue an advanced degree in certain fields after receiving a baccalaureate may qualify for delayed entry on active duty.

Students interested in pursuing civilian careers after graduation may apply for duty in the National Guard or Reserve.

Students can enter into the Simultaneous Membership Program (SMP). This allows students to earn valuable experience by serving in the Army National Guard or Army Reserves while enrolled in ROTC. Students continue their regular school curriculum and are protected from deployment while assigned to a National Guard or Reserve unit. Students receive additional financial support from the National Guard or Reserves as an incentive to serve as officers upon graduation and commissioning.

Special Training

Outstanding cadets may qualify to attend special Army schools such as Mountain Warfare Training, Northern Warfare School, Air Assault School or Airborne School. Selection is on a competitive basis.

Outstanding cadets are honored at frequent award ceremonies. Scholarship cadets can fly space-available aboard military aircraft. Once commissioned, a second lieutenant's starting salary is about $35,000, excluding housing allowances and special pays that are not taxed. 2LTs earn about $3,500 per year in the National Guard or Reserve in a part-time status.

Course Descriptions

Definition of Prefixes

MSL-Military Science

MSL 1001 Foundations of Officership (2). MSL 1001L Foundations of Officership Laboratory (0). Examines the unique duties and responsibilities of officers, organization and role of the Army, review skills pertaining to fitness and communication, analyze Army values and expected ethical behavior.

MSL 1002 Basic Leadership (2). MSL 1002L Basic Leadership Laboratory (0). Presents fundamental leadership concepts and doctrine, practice basic skills that underlie effective problem solving, examine the officer experience.

MSL 2101 Individual Leadership Studies (2). MSL 2101L Individual Leadership Laboratory (0). Develops knowledge of self, self-confidence, and individual leadership skills, develop problem solving and critical thinking skills, apply communication, feedback, and conflict resolution skills.

MSL 2102 Leadership and Teamwork (2). MSL 2102L Leadership and Teamwork Laboratory (0). Focuses on self-development guided by knowledge of self and group processes, challenges current beliefs, knowledge, and skills.

MSL 3201 Leadership and Problem Solving (3). MSL 3201L Leadership and Problem Solving Laboratory (0). Examines skills that underlie effective problem solving, analyze military missions an plan military operations, execute squad battle drills.

MSL 3202 Leadership and Ethics (3). MSL 3202L Leadership and Ethics Laboratory (0). Probes leader responsibilities that foster an ethical command climate, develop cadet leadership competencies, apply principles and techniques of effective written and oral communication.

MSL 4301 Leadership and Management (3). MSL 4301L Leadership and Management Laboratory (0). Discuss staff organization, functions, and processes, analyze counseling responsibilities and methods, and apply leadership and problem solving principles to a complex case study/simulation.

MSL 4302 Officership (3). MSL 4302L Officer Leadership Laboratory (0). Capstone course to explore topics relevant to second lieutenants entering the Army, describe legal aspects of decision making and leadership, analyze Army organization from tactical to strategic level.

MSL 4400 United States Military History (1-3). Examines the Military Heritage of the United States from colonial wars to the present; focuses on the operational and strategic levels of warfare.

MSL 4900 Supervised and/or Independent Study (1-3). Supervised reading and independent study in United States Military History, writing requirements. Prerequisite: Permission of the instructor is required.

A

Academic Advising Center, 23, 71
Academic Affairs, 33-36, 66
Academic Calendar, 4-11
Academic Certificate, 20
Academic Credit Programs, 46
Academic Definitions, 52
Academic Degree Requirements, 51-52
Academic Honors, 55
Academic Learning Compact, 30
Academic Programs, 18-22
Academic Units, 69-70
Academic Warning, Probation, and Dismissal, 55
Academy for Lifelong Learning, 45
The Academy for the Art of Teaching, 24
Acceleration, 28
Accounting, Auditing, and Tax Studies, Center for, 73
Accounting, School of, 69, 320-321
  Accounting, Bachelor of, 320-321
  Accreditations, 17
  Faculty, 320
Accreditations, 17
Actuarial Studies Certificate Program, 278
Adding Courses, 53
Administration and Staff, 66-68
Administration of Justice, Center for, 73
Admissions procedures, *See* Undergraduate Admissions, 48-50, 71
Advanced Distributed Systems Engineering, Center for 73, 394
Advanced Level Program, 28
Advanced Placement, 28
Advanced Materials Engineering Research Institute, 392-393
Advanced Technology and Education, Center for 73, 394-395
Advertising, *See* Journalism and Mass Communication, School of 519-528
Affiliated Students, 51
African-New World Studies, 132
  Certificate, 279–280
African Studies Certificate, 280
Agroecology Certificate Program, 280-281
Alvah H. Chapman, Jr. Graduate School of Business, 69
  See also Business Administration, College of, 315–345
American Studies Certificate, 281
Americans with Disabilities Act (ADA), 65
Amnesty, Undergraduate Academic, 56
Ancient Mediterranean Civilization Certificate, 281-282
Anesthesiology Nursing, 17
Anthropology, *See* Sociology and Anthropology, 264-271
AP, *See* Advanced Placement, 28
Application Process, 48-50
Applied Research Center, 393-394,
Architecture and The Arts, College of, 18, 19, 69, 79–128
  Accreditation, 17
  Architecture,
    Bachelor of Art in, 82
    Biscayne Bay Programs, 19
    Certificate, 21, 84
    History and Theory of Architecture Certificate, 84
  Interior Design, Bachelor of, 82-83
  Landscape Architecture,
    Bachelor of, 83-84
    Certificate, 84
  Faculty, 81, 127-128
Art and Art History, 92-99
  Accreditation, 17
  Art History, Bachelor of, 92
  Fine Arts in Art, Bachelor of, 92
  Faculty, 92, 127-128
  Minor in Art, 92
  Minor in Art History, 92
Art Education, Bachelor of Science in, 353
Arts and Sciences, College of, 18-22, 69, 129-313
  Biscayne Bay Programs, 19
  Broward Pines Center, 19
  Certificate Program, 21, 130
  Deans and Faculty, 130, 307-313
  Interdisciplinary Courses, 131
  Evening and weekend degree programs, 22
  Minors, 20, 131
Asian Globalization and Latin America Certificate, 283-286
Asian Studies, 133-135
  Bachelor of Arts in, 133-134
  Certificate, 282–283
  Faculty, 133
  Institute for, 73
  Minor, 134
Associate in Arts, 52
Astronomy, Minor in, 215
Athletes, *See* Sports; Student Athlete Academic Center, 24
Athletics and Athletic Facilities, 45, 67, 71
Attendance policy, religious holy days, 57

B

Bachelor's degree requirements, 50-51
The Beacon, See Student Media, 40
Bioinformatics Research Center, 394
Biological Sciences, 136-147
  Biological Sciences Biomedical and Premedical Honors Track 137-138
  Biology, Bachelor of Science in, 136-137
  Marine Biology, Bachelor of Science in, 137
  Combined Degree Programs, 138-139
  Faculty, 136
  Honors in Biology, 137
  Minors, 138
Biology Education (6-12), Bachelor of Science, 354
Biomedical Engineering, 401-405
  Bachelor of Science, 401-402
  Faculty, 401
  Five year Accelerated Combined BS/MS degree programs, 402-403
  Institute, 73
  Minor, 402
Biscayne Bay Campus, 15
  Programs, 19
Bookstore, 71
Broward Pines Center, 16
  Programs, 19
Bursar/Cashiers, 71
Business Administration, College of, 18, 69, 315–345
  Accreditation, 17
  Biscayne Bay Programs, 19
  Broward Pines Center, 19
  Certificate Program, 21
  Core Courses, 319
  Deans and Faculty, 316, 342-345
  Entrepreneurship Minor for Non-Business Students, 328
  Environment Track, 328
  Evening and weekend degree programs, 22
  International Business Honors Program, 316
  Landon Undergraduate School, Degree Program, 316-319
  Minor, 20, 317
  Mission Statement, 316

C

Calendar, *See* Academic Calendar 4-10
Cambridge AICE (A-Level) Exams, 28

Campus Life, 37, 72
Campus Recreation Services, 43-44, 72
Career Services, 39, 72
Center for Leadership and Service, 38-39
Centers and Institutes, 66-67, 73-74
Certificate in Banking, 314
Certificate in International Bank Management (CIBM), 314
Certificate Programs, 20-21, 52, 278-306
Certificate Students, 51
Change of College /School Major, 52
Checks, 61
Chemistry and Biochemistry, 148-155
Accreditation, 17
Accelerated Master of Science Programs, 149
Bachelor of Arts, 149-150
Bachelor of Science, 148
Cooperative Education, 151
Faculty, 148
Honors, 148-149
Minor, 150-151
Chemistry Education, Bachelor of Science in, 354
Child and Family Psychosocial Research Center, 73
Child Welfare Services Certificate, 490
Children and Families at Risk, Institute for, 73
Children's Creative Learning Center, 38, 73
Chinese Studies Certificate, 286
Civil and Environmental Engineering 406-413
Civil Engineering, Bachelor of Science in, 406-407
Environmental Engineering, Bachelor of Science in, 409-410
Combined Programs, 407-408
Faculty, 406
Classification of Students, 50
Classics, *See* Humanities, 189--191
College-Level Academic Skills Test (CLAST), 23–24
College-Level Examination Program (CLEP), 28
College/Major Classification, 51
Communications, *See* Journalism and Mass Communication, School of, 519-528
Commuter Student Services, *See* Orientation and Commuter Student Services, 41
Comparative Immunology Certificate Program, 286-287
Computer Engineering, Bachelor of Science in, 416-418
Computing and Information Sciences, School of, 17, 69 445-451
Accreditation, 17
Computer Science, Bachelor of Science in, 445-446
Information Technology, Bachelor of Science in, 446
Information Technology, Bachelor of Arts in, 446-447
Faculty, 445
Minor, 447
Confidentiality of records, *See* Release of Student Information, 56
Construction Management, 414-418
Accreditation, 17,
Bachelor of Science, 414-416
Faculty, 414, 417
Honorary and Professional Organizations, 414
Minor, 415
Continuing & Professional Studies, (CAPS), 46–47, 67, 69
Cooperative Education, *See* individual colleges and schools
Copy Center, 72
Core Curriculum, 24-26
Counseling & Psychological Services, 43, 72
Course Numbering System, 75-77
Credit by examination, Departmental, 55
Credit Union, 72
Criminal Justice, 484-4486
Bachelor of Science, 484
Combined degree, 484-485
Faculty, 484
Minor, 485
Cuban and Cuban-American Studies Certificate, 287
Cuban Research Institute, 73
Curriculum and Instruction, 351-357
Faculty, 351
Undergraduate Minor in Education, 357

D

Dance, *See* Theatre, Dance and Speech Communication, 116-124
Dean's List, 55
Decision Sciences and Information Systems, 322
Faculty, 322
Management Information System, Major, 322
Definitions, Academic, 51
Degree-seeking students, 51
Dietetics and Nutrition, 496-498
Accreditation, 17
Dietetics and Nutrition, Bachelor of Science in, 496-497
Faculty, 496
Minor in Nutrition, 497-498
Disability Resource Center, 39
Distributed Multimedia Information Systems Laboratory, 396
Dismissal, *See* Academic warning, probation and dismissal, 55
Distance Learning, 45
Diversity in Engineering, Center for, 73, 396
Division of Corporate and Global Programs, 396-397
Dropping and Adding Courses, 53

E

Early Childhood Education, Bachelor of Science in, 352-353
Earth Sciences, 156-163
Earth Sciences, Bachelor of Arts 157-158
Geosciences, Bachelor of Science in, 156
Cooperative Education, 158
Faculty, 156
Honors in Geosciences, 157
Minor in Geology, 158
Economic Research and Education, Center for, 73
Economics, 164-168
Bachelor of Arts, 164
Combined BA/MA in Economics, 164-165
Faculty, 164
Minor, 165
Education, College of, 18, 69, 347-382
Accreditation, 17
Bachelor of Science programs, 348
Broward Pines Center, 19
Certificate Programs, 21, 349-350
Courses, 356-368
Deans and Faculty, 348, 381-382
Fingerprint requirement, 350
Minor, 20, 349
Educational and Psychological Studies Faculty, 361-362
Faculty, 361
Special Education, Bachelor of Science in, 361-362
Educational Leadership and Policy Studies, 358-360
Certificate Programs, 358-359
Faculty, 358
Labor Studies and Labor Relations Professional Program, 359-360
Electives, *See* Core Curriculum, 24-26

Electrical and Computer Engineering, 419-426
Accelerated Combined Programs, 420-422, 424
Electrical Engineering, Bachelor of Science in, 419
Computer Engineering, Bachelor of Science in, 422-423
Faculty, 419
Elementary Education, Bachelor of Science in, 353
Employment, *See* Human Resources, 65
Engineering and Computing College of, 18, 69, 383-455
Accreditation, 17, 385-386
Admission and Dismissal Policy, 386-387
Biscayne Bay Programs, 19
Broward Pines Center, 20
Certificate, 21
Cooperative education, 387
Evening and Weekend degree Program, 22
Deans and Faculty, 384, 388 452-455
Educational objectives, 384-385
Engineering Information Center, 397
Engineering Manufacturing Center, 73, 397
Evening and weekend degree programs, 21
Minors, 20
Research and Development Centers, 392-400
Scholarships, 387-389
Special Programs, 391-392
English, 169-176
Bachelor of Arts, 169
Faculty, 169
Minor, 169-170
English Education, Bachelor of Science in, 354-355
English Language Institute, 73
English Placement Tests, 23
Enrollment Certification and Status 56
Entrepreneurship, 316-317
Environmental Studies, 177-181
Accelerated Master's of Science, 178
Bachelor of Arts, 178
Bachelor of Science, 177-178
Certificate Program, 288
Cooperative Education, 179
Faculty, 177
Internships, 179
Minor, 178-179
Equal Opportunity Programs, 65
ESOL, 339-341
Ethnic Studies Certificate Program, 288-289
Ethnobiology and Natural Products, Center for, 73
Eugenio Pino Global Entrepreneurship Center, 73, 397
European Studies, 132
Certificate Program, 289
Evening and Weekend Degree Programs, 21
Examinations, 54
Exchange programs, *See* International Student Exchange Program; National Student Exchange, 28
Exercise and Sports Sciences, Bachelor of Science in, 351-353

F

FEEDS Program, 397-398
Fees, 50-61
Liability, 61
Waivers, 60
Film Studies Certificate, 289-290
Final examinations, 55
Final Grades, 55
Finance and Real Estate, 323-325
Certificate Programs, 324
Faculty, 323
Major, 323
Real Estate Major, 323
Financial Aid, 60, 63-64, 72
Return Policy, 54
Services, 64
First Year Experience, 25, 95
FIU Board of Trustees, 12
Florida Board of Education, 12
Florida Board of Governors, 12
Florida-Caribbean Institute, 73
Florida Center for Analytical Electron Microscopy, 73
Florida-Mexico Institute, 73
Florida Prepaid Tuition Plan, 60
Florida Residency, 57-58
Florida Statewide Course Numbering System, 75-77
Foreign Language Requirement, 27
Forensic Science Certificate Program, 290
Forgiveness policy, 54-55
Fraternities, *See* Greek life, 38
Freshman Applicants, 48
French, *See* Modern Languages, 209-224
French Education, Bachelor of Science in, 355
The Frost Art Museum, 34-35, 71, 74, 126
Accreditation, 16
Faculty, 126, 127-128
Future Aerospace Science and Technology Center for Cryoelectronics, 73, 398

G

General Translation Studies, Minor 177
Geography, *See* International Relations, 192-198
Geosciences, *See* Earth Sciences 156-163
Gerotological Studies Certificate, Program, 290-291
Grading Options, 54
Graduation, Application for, 55, 72
Graham Center, *See* University Centers, 42
Greek Life, see Sorority and Fraternity Life, 38

H

Health, Physical Education and Recreation, 363-367
Faculty, 363
Exercises and Sports Science, Bachelor of Science in, 363-364
Parks Recreation Management, Bachelor of Science in, 364-365
Physical Education, Bachelor of Science in, 365-366
Recreation Management Certificate, 365
Health care for students, *See* University Health Services, 38-40
Health Information Management, 459-460
Bachelor of Science, 459
Certificate, 475
Health Policy and Management, 499-500
Faculty, 499
Health Services Administration, Bachelor of Science in, 494, 499
Internship, 499
Minor, 495, 499
Health Research & Policy, Center for, 73
Health Sciences, 69, 461-464
Faculty, 461
Health Sciences, Bachelor of Science in, 461-463
Heating, Ventilating and Air Conditioning Design Certificate, 439
High Performance Database Research Center, 73, 398
History, 182-188
Bachelor of Arts, 182
Faculty, 182
Minor, 182
HIV/AIDS Policy, 65

The Honors College, 31-32, 69, 529-531
Honors Place, 530
Faculty, 529, 531
Pre-collegiate Summer Institute, 530
Hospitality & Tourism Education & Research, Institute for, 73
Hospitality and Tourism Management, School of, 19, 70, 507-518
Biscayne Bay Programs, 19
Certificate Programs, 21, 510-512
Evening and weekend degree programs, 22
Faculty, 508, 518
Hospitality Management, Bachelor of Science, 509
Minors, 20, 510
Travel and Tourism Management, Bachelor of Science in, 509
Housing and Residential Life, Department of, 40-41, 72
Human Resources, 65
Human Resources Management, *See* Management and International Business, 326-329
Humanities, 189--191
Bachelor of Arts, 189
Classics Track, 189-190
Faculty, 189
Minor, 190

I

IB, *See* International Baccalaureate, 27, 510
Immunization, 53
Incomplete grade, 54
Industrial and Systems Engineering, 427-433
Bachelor of Science, 427-429
Combined Programs, 429
Faculty, 427
Minors, 429
Infant Development Research Center, 73
Information Technology, Bachelor of Science in, 403
Bachelor of Arts, 403-404
Intercollegiate Athletics, 45, 67-68
Intercultural Dance & Music Institute, 74
Intercultural Institute for Educational Initiatives, 74
International Applicants, 49-50
International Baccalaureate (IB), 28, 510
International Bank Management Certificate in, 324-325
International Business, *See* Management and International Business, 326-329
International Business Education & Research, Center for, 73
International Forensics Research Institute, 74
International Hurricane Research Center (IHRC), 74, 398
International Media Center, 74
International Relations, 192-198
Bachelor of Arts, 192-193
Bachelor of Arts in Geography, 193
Combined Degree Programs, 192-193
Faculty, 192
Honors, 193
Minor, 193
Minor in Geography, 193
International Student & Scholar Services, 41
International Student Exchange Program, 28-29
International students
Applicants, 48–49
Proficiency in English, 48
Tuition, 49
Internet Augmented Research, Center for, 73
Internships, *See* Career Services 39, 72; and individual colleges and schools

J

Jack D. Gordon Institute for Public Policy & Citizenship Studies, 74
Japanese Studies Certificate Program, 291-292
Jerome Bain Real Estate Institute, 74
Journalism and Mass Communication, School of, 19, 70, 519-528
Accreditation, 17
Advertising, 521
Communication, Bachelor of Science in 520-521
Biscayne Bay Programs, 19
Certificate Programs, 21, 524
Evening and weekend degree Programs, 22
Faculty, 528, 520
Internships, 523
Journalism, 521-522
Mass Communication Certificate, 524
Minors, 20, 523-524
Public Relations, 522
Television, 522-523
Judaic & Near Easter Studies, Institute for, 74
Judaic Studies Certificate Program, 292

K

Knight Ridder Center for Excellence In Management, 74
Kovens Conference Center, 46-47

L

Labor Studies, 167-169
Certificate Program, 292-293
Faculty, 167
Labor Relations Professional Certificate, 347-348
Labor Research and Studies, Center for, 73
Landon, R. Kirk, Undergraduate School, See College of Business School, 315–345
Landscape Architecture Accreditation, 17
Landscape Architecture, Bachelor of 83-84
Certificate Program, 84
Late Adds and Drops, 53
Late Registration Fee, 60
Late fees, 53, 60
Latin America Certificate, *See* Asian Globalization and Latin America, 283-286
Latin America and Caribbean Center, 74
Latin American and Caribbean Studies Certificate, 293
Law, College of, 70
Law, Ethics and Society Certificate, 293-294
Legal Studies Institute, 46
Legal Translation and Court Interpreting Certificate, 294
Lehman Center for Transportation Research, 74, 398-399
Leisure Service Management, *See* Education, College of, 347-382
Liberal Studies, 199-203
Bachelor of Arts, 199-200
Faculty, 199
Labor Studies Concentration, 200
Libraries, *See* University Libraries, 33, 66, 72
Limited Access Programs, 48
Linguistics Studies Certificate Program, 294-295
Logistics Track, Marketing, 318-319

M

Major, 50-51, *See also* individual schools and colleges

Management and International Business, 326-329
Entrepreneurship Programs, 328-329
Faculty, 326
Human Resources Management, 327
Management Major, 326
International Business, 327-328
Management Information Systems Major, 322
Marketing, 330-331
Faculty, 330
Logistics Track, 330-331
Major, 330
Minor, 331
Retail Management Certificate, 331
Masters of Arts in Teaching (MAT), 350
Mass Communications, *See* Journalism and Mass Communication, School of 519-528
Math Placement Test, 23
Mathematics, 204-208
Bachelor of Science, 205
Bachelor of Science in Mathematical Sciences, 204
Faculty, 204
Minors, 204-205
Mathematics Education, Bachelor of Science in, 355
Mechanical and Materials Engineering, 434-444
Mechanical Engineering, Bachelor of Science in, 437-444
Certificate program, 439
Combined BSME/MSME Program, 437-438
Faculty, 434
Minors, 438
Media, *See* The Beacon; WRGP Radio, 40
Media Management Certificate, 524
Metropolitan Center, 74
Middle East and Central Asian Studies Certificate, 294-295
Military Science, 532-533
Faculty, 532
Special Training, 532
Minors, 19-20, 52, *See also* individual schools and colleges
Modern Languages, 209-224
Bachelor of Arts, 209
Combined Degree Programs 209-210
Faculty, 209
French Majors, 210
Minor in French language and Culture, 210
Minor in Portuguese, 210
Minor in Spanish language and culture, 211
Portuguese Majors, 210
Spanish Majors, 209
Minor in General Translation Studies, 210-211
Motorola Nanofabrication Research Facility, 399
Multicultural Programs & Services, 40
Multicultural Training Institute, 46
Multifaith Council, 39
Music, School of, 69, 100-116
Accreditation, 17
Bachelor of Arts, 102-103
Bachelor of Music, 100-101
Faculty, 100, 127-128
Minor in Music Composition, 101
Music Education, Bachelor of Science in, 103

N

National Policy and Resources Center on Nutrition and Aging, 74
National Student Exchange, 28
National Security Studies Certificate Program, 295-297
Non-College Learning, Credit for, 28
Non-credit programs, 46
Non-degree seeking students, 51
Nursing and Health Sciences, Colleges of, 18, 69, 457-477
Accreditation, 17
Advanced Placement and Progression of RNs, 468
Advanced Placement and Progression of RNs by Matriculation and/or Equivalency Exam, 468
Biscayne Bay Programs, 19
Certificate, 21
Evening and Weekend degree Program, 22
Faculty, 458, 465, 476-477
LPN to BSN Program, 467
Nursing, Bachelor of Science in 466
RN to BSN Program, 467-468
Nutrition, *See* Dietetics and Nutrition, 495, 496-498

O

Occupational Therapy, 462, 471-473
Accreditation, 17
Bachelor of Health Science Occupational Therapy Track, 462, 471
Faculty, 471
Ombudsman, Office of, 41
Orientation and Commuter Student Services, 41
Osher Lifelong Learning Institute, 46

P

Panther ID, 57
Parking Rules & Regulations, 61, 72
Parks and Recreation Management, Bachelor of Science in, 353
Past due accounts, 62
Patricia & Phillip Frost Art Museum *See Frost* Art Museum
Payment of tuition and fees, 59
Phi Beta Kappa, 131
Philosophy, 225-230
Bachelor of Arts, 225-226
Bachelor of Arts in Philosophy With Honors, 226
Faculty, 225
Minor, 226
Physical Education, Bachelor of Science in, 354
Physical Therapy, 461-462, 474
Accreditation, 17
Faculty, 474
Physics, 231-236
Bachelor of Arts, 231-232
Bachelor of Science, 231
Cooperative Education, 233
Faculty, 231
Minors, 233
Physics Education, Bachelor of Science in, 355-356
The Pines Center, *See* Broward Pines Center, 16, 19
Policy and Management, School of, 69, 465-268
Political Science, 237-247
Bachelor of Arts, 237-238
Faculty, 237
Minor, 238
Public Affairs Internships, 239
Portuguese, *See* Modern Languages, 209-224
Interpretation Studies Certificate, 297-298
Translation Studies Certificate, 298
Pre-Collegiate Programs and Grants, 43
Pre-Law Advisement, 30
Pre-Law Advisement & Students, 29, 221
Pre-Medical Advisement, 29
Pre-Medical, Dental, Optometry and Veterinary Advisement & Curricula, 28, 109, 122
Pre-Modern Cultures Certificate, 298-300

Probation, *See* Academic warning, probation and dismissal, 55
Professional Certificate, 21
Professional Development, 46
Professional Development Center, 74
Professional Language Certificate, 300
Professional Leadership Studies Certificate, 490
Psychological Services, *See* Counseling & Psychological Services, 43
Psychology, 246-254
Bachelor of Arts, 246
Faculty, 246
Honors, 247
Minor, 247
Public Administration, 69, 487-491
Accreditation, 17
Certificates, 490-491
Bachelor of Public Administration, 487
Faculty, 487
Minor, 487-488
Public Affairs, *See* Social Work, Justice and Public Affairs, College of 479-492
Public Management and Community Services, Institute for, 74
Public Opinion Research, Institute For, 74
Public Policy Studies Certificate, 301-303
Public Relations, *See* Journalism and Mass Communication, School of, 519-528
Public Safety, 72

R

Re-admission, 56
Real Estate, *See* Finance and Real Estate, 323-325
Records and transcripts, 55-56
Recreation on campus, *See* Campus Recreation Services, 43-44
Recreation Management Certificate, 353-354
Refunds, 61-62
Reinstatement of classes, 61
Registration, 53, 72
Release of student information, 56
Religion on campus, *See* Multifaith Council, 39
Religious Studies, 255-263
Accelerated Master of Arts, 256
Bachelor of Arts, 255
Faculty, 255
Honors, 256
Minor, 255-256
Repeat course tuition surcharge, 62
Residential Life, 40
Retail Management Certificate, 319
Robert R. Stempel School of Public Health, *See* Stempel Robert R. School of Public Health, 493-506
ROTC, *See* Military Science, 532-533
Rules and Regulations, *See* University Undergraduate Rules and Regulations, 51-59

S

Salvage policy, *See* Undergraduate Academic Salvage, 56
Scholarships, 50
Sexual Harassment, Nondiscrimination, Educational Equity, 65
Social Security Number, 57
Social Studies Education, Bachelor of Science in, 356
Social Work, Justice and Public Affairs, College of, 18, 69, 479-492
Accreditation, 17
Bachelor of Science, in Social Work 480 - 481
Biscaye Bay Programs, 19
Certificate, 21, 490-491
Evening and Weekend degree program, 22
Faculty, 480, 492
Minors, 20
Minor in Social Welfare, 481
Sociology and Anthropology, 264-271
Sociology/Anthropology, Bachelor of Arts in, 254
Faculty, 264
Minor, 264
Sorority and Fraternity Life, 38
South Asian Area Studies Certificate Program, 303-304
Southeast Environmental Research Center, 74
Southern Association of Colleges and Schools Commission on Colleges, (SACS), 17
Spanish, *See* Modern Languages 209-224
Spanish Education, Bachelor of Science in, 356-357
Spanish Language Journalism, Certificate, 504
Special Accommodations *See* Disability Resource Center, 39
Special Education, Bachelor of Science in, 349-350
Speech Communication, *See* Theatre, Dance and Speech Communication, 116-124
Sports
Campus Recreation Services, 43
Intercollegiate, 44
Statistics, 271-271
Bachelor of Science, 271
Faculty, 271
Minor, 272
Stempel, Robert R. School of Public Health, 19, 69, 493-506
Dietetics and Nutrition, Bachelor Of Science in, 495-496
Faculty, 494, 504-505
Health Services Administration, Bachelor of, 494, 499
Minors, 20, 495
Statistics, 271-274
Bachelor of Science, 271
Faculty, 271,
Minors, 20, 272
Student Affairs, 37-44, 68
Student Athlete Academic Center, 24
Student Centers, *See* University Centers, -42
Student Conduct and Conflict Resolution, Office of, 41-42
Student Government Association, 38, 72
Student Media, 40
Student Media Advising Certificate, 504
Student Records, 56
Student Research and Artistic Initiatives, (SARI), 510
Study Abroad Program, 29
Study of Matter at Extreme Conditions, Center for the 73, 396
Summer enrollment requirement, 52
Summit of the Americas Center, 74

T

Telecommunications and Information Technology Institute, 74, 399-400
Television, *See* Journalism and Mass Communication, School of 519-528
Terms Courses Offered, 58
Theatre, Dance and Speech Communication, 117-125
Dance, Bachelor of Arts in, 119
Speech Communication, 122-123
Theatre, Bachelor of Arts in, 117
Theatre, Bachelor of Fine Arts in, 117-118
Faculty, 117, 127-128
Minor in Dance, 119-120

Minor in Theatre, 118
Theatre Accreditation, 17
Transcripts, 57
Transfer Applicants, 47-48
Transfer Credit, 27-28
Transfer students, 27-28, 48-49, 63
Transient students, 51
Translation Studies Certificate, 304
Transnational and Comparative Studies, Center for, 73
Travel and Tourism Management, Bachelor of Science in, 489-490
Certificate, 490-491
Minor, 490
Tuition & Fees, 60-62

U

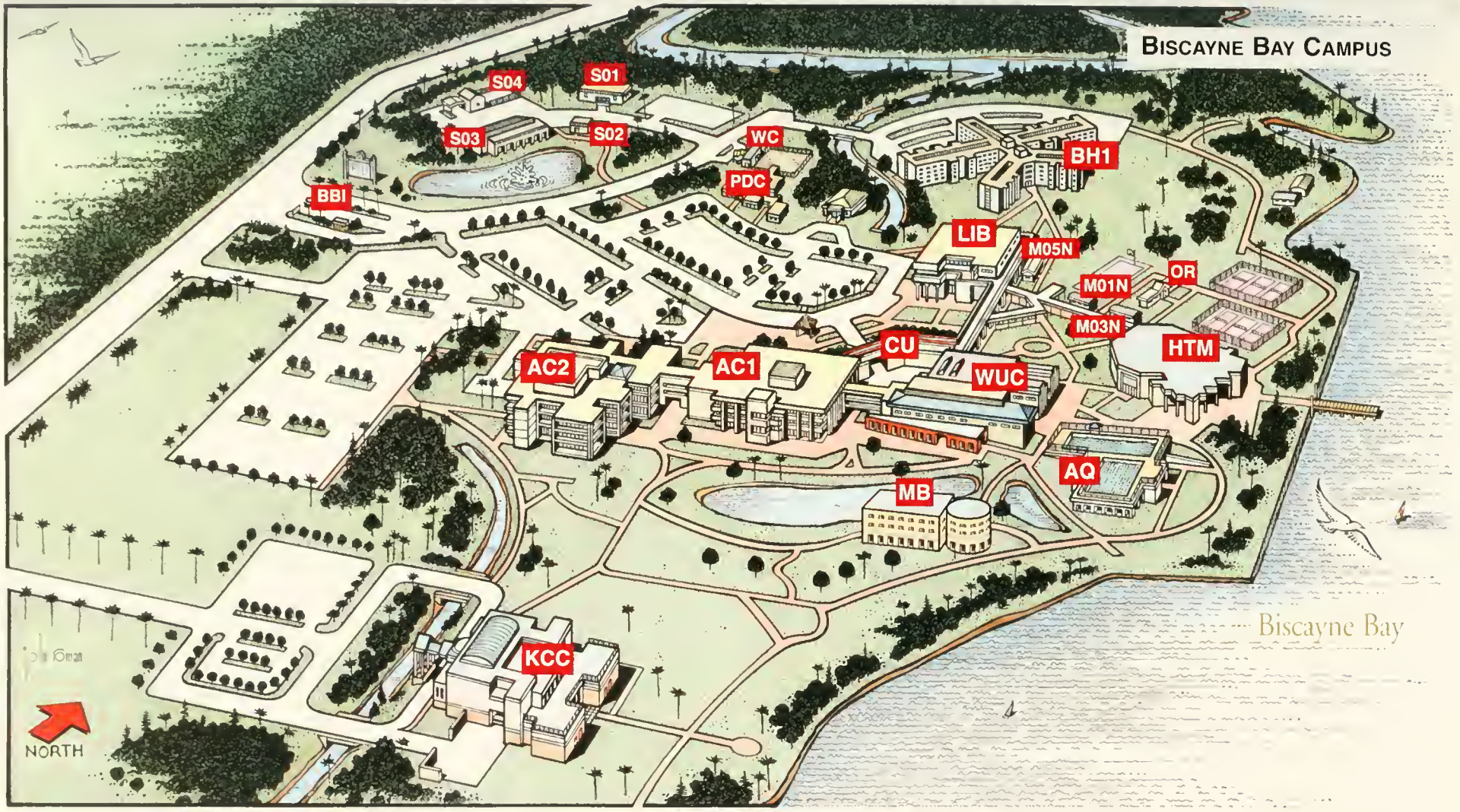
Upward Bound, 43
University Administration & Staff, 12, 65-68
Undergraduate Academic Salvage, 55
Undergraduate Admissions, 48-50
Undergraduate Studies, 23-30
University Centers, 42
University Core Curriculum, 25-27
University Graduate School, 70
University Health Services, 38-40, 72
University Information, 12-13
University Learning Center, 24, 72
University Libraries, 33, 66, 72
University Mission and Values Statement, 12
University Park Campus, 13-14
University Park Programs, 18-19
University Testing Center, 23
Urban Affairs Certificate, 490-491
Urban Education and Innovation, Center for, 73

V

Values statement, 12
Veterans' information, 57
Victim Advocacy Center, 42

W

Waivers, 59
Warning, See Academic warning, probation and dismissal, 55
Weekend degree programs, See individual colleges and schools
Wellness Center, See University Health Services, 38-40
Withdrawal, 53-54
Wolfe University Center, See University Centers, 42
The Wolfsonian-FIU, 35-36, 72, 74
Women's Center, 42-43
Women's Studies, 275-277
Bachelor of Arts, 275-277
Certificate, 304-306
Faculty, 275
Institute, 74
WRGP radio, See Student Media 40



AC 1	Academic I
AC 2	Academic II
AQ	Aquatic Center
BBI	Biscayne Bay Campus Information Booth
BH1	Bay Vista Housing
CU	Central Utilities
HTM	Hospitality and Tourism Management Southern Wine & Spirits Beverage Management Center
KCC	Kovens Conference Center
LIB	Library
MB	Marine Biology
M01N	Trailer 1
M03N	Trailer 3
M05N	Trailer 5
OR	Outdoor Recreation
PDC	HRS Practice Center, Classroom and Administration Bldg.
S01	Central Receiving
S02	Public Safety
S03	Physical Plant
SHC	Student Health Center
WC	Wellness Center
WUC	Wolfe University Center

UNDERGRADUATE

07 • 08

course catalog

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